Public Utilities

FORTNIGHTLY

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Volume XLII No. 11 November 18, 1948

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

"Job-Rated" TO FIT THE JOB

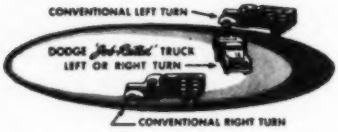
Trucks that *fit your job* . . . save you money. They save in many ways.

They save on gas, oil, and tires. They save on upkeep and repairs. They stay on the job. They last longer.

For such a truck, see your Dodge dealer. Tell him what you haul . . . the weight of your load . . . and your operating conditions. He will then recommend a Dodge *"Job-Rated"* truck that has been engineered and built to fit *your* job.

Your new truck will have *"Job-Rated"* power, the performance with economy. Each unit will be *"Job-Rated"* for long life and dependable operation

PLUS . . . these important NEW features



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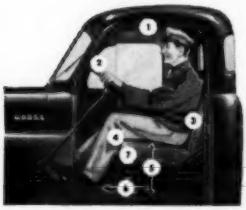

1. Plenty of headroom. Steering wheel, right where you want it. Natural back support adjustable for maximum comfort. **4.** Proper leg support, under the knee where you need it. Chair-height seats. **6.** inch seat adjustment, with safe, convenient hand control. **7.** "Air-O-Ride" cushions, adjustable for weight of driver and road conditions.

For the location of the Dodge dealer in your community, consult the yellow pages of your telephone book.

DODGE "Job-Rated" TRUCKS

FIT THE JOB . . . LAST LONGER !

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—with electrically operated diaphragm gas control valve

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For dependability and efficiency, use Barber Gas Conversion Burners, made in sizes and capacities to fit all types of round or oblong furnaces and boilers. There is no comparison whatever between the average mixer-type gas burner and the Barber *Vacuum pre-mixture*, employing the famous patented Barber Impinged Jet. Equip your jobs with genuine Barber units.

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FEATURE SECTIONS

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Pages with the Editors

WE hope the picture of the turkey reproduced as a frontispiece in this issue will not be wrongly construed with reference to recent events at the election polls. Thanksgiving Day is a good enough reason in its own right for a turkey picture without further implications.

FACT of the matter is, even that omniscient clan of experts—the Washington observers—seems to be in disagreement over who has a right to be thankful for what, when it comes to interpreting the recent election. It must be admitted that President Truman, despite a vigorous campaign, did not make too many restrictive commitments for the future. The confusion resulting from the Democratic upset in gaining control of both houses of Congress and President Truman's emphasis on public power matters complicates the picture more than ever.

FOR this reason we have asked one of the professional Washington observers to defer the analysis of what his election is likely to mean, in terms of public power policy and other questions of concern to public utility industries. Accordingly, the previously announced article by Larston D. Farrar has been postponed.

J. LOUIS DONNELLY

MERWIN H. WATERMAN

THE task of the utility industry in raising funds for plant expansion has certainly not been made easier by the unexpected election returns. For that reason, more emphasis will be placed on technical means and short cuts that will assist the sale of common stock. ERNEST R. ABRAMS, and W. TRUSLOW HYDE, JR., whose article entitled "Sale of Utility Common Stocks through Warrants" begins on page 703, analyzes one interesting approach to this problem.

MR. HYDE is a security analyst specializing in utility issues, and is well known in financial circles. MR. ABRAMS is an economist and writer of business articles whose work has often appeared in these pages.

* * * *

ONE specific matter which will be affected by the outcome of the elections and which is certainly of interest to the electric power utilities, is the progress being made on the New York State Power Authority's plan to develop St. Lawrence power jointly with the Province of Ontario. This was Governor Dewey's "baby" so to speak. It may still be that. The Federal Power Commis-

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sion, a quasi judicial agency, still has to speak its word of approval.

WE would not suggest that the recent elections could have any bearing on the deliberations of the FPC. But we do seem to recall a penetrating remark by the astute Mr. Dewey to the effect that election returns sometimes function as a sort of *amicus curiae* with respect to deliberations of the United States Supreme Court.

IF the highest court justices afford themselves the assistance of reading the front sheet of their daily newspaper, it might not be too irreverent to speculate that FPC commissioners could conceivably do likewise.

IN any event, the article entitled "The New York St. Lawrence Public Power Project"—beginning on page 728—by J. LOUIS DONNELLY should throw some light on the subject. MR. DONNELLY is a financial writer on the staff of the New York *Journal of Commerce*. A graduate of Middlebury College and New York University, his experience has been chiefly in the journalistic field with such dailies as the *New York Evening Telegram, New York News,* and *The Wall Street Journal*. He is a member of the New York Society of Security Analysts.

* * * *

ANOTHER article in this issue, beginning on page 709, entitled "Regulation and the Equity Capital Problem," was written by DR. MERWIN H. WATERMAN, professor of finance at the University of Michigan. DR. WATERMAN graduated from the school of business administration and received his PhD ('32) in economics at the University of Michigan.

* * * *

CLEM STEARNS, whose article entitled "Keeping Utility Service Up in a Great Flood Emergency" begins on page 722, is a member of the publicity staff of the Washington Water Power Company at Spokane. MR. STEARNS studied journalism at the University of Washington and after a tour of duty during World War II joined the Washington Water Power staff in 1947.

CLEM STEARNS

AMONG the important decisions preprinted from *Public Utilities Reports* in the back of this number, may be found the following:

WHETHER the fair rate of return of an electric utility should be arrived at by taking the present capitalization, determining bond interest and preferred stock dividend requirements, and then adding a return on the common stock equity, is ruled upon by the Ohio commission. (See page 97.)

FORFEITED discounts should be considered as a source of revenue to a gas company for rate-making purposes, according to the Connecticut commission. (See page 114.)

THE Connecticut commission, in determining reasonable allowances for a gas company's operating expenses, estimated its Federal income taxes on a consolidated basis where the company and its affiliates calculated the tax on the basis of a consolidated tax return. (See page 114.)

THE next number of this magazine will be out December 2nd.

The Editors

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FEDERAL FINANCIAL AID TO FOREIGN PUBLIC UTILITIES. PART I

It is not generally realized, even among those interested in public utility company operations in the United States, that our Federal government gives financial support from the United States Treasury to three different international lending organizations which have authority to lend financial assistance for the establishment, rehabilitation, and expansion of public utility operations in foreign countries; and that such authority has been exercised to the amount of many millions of dollars. Herbert Bratter, banking and financial analyst, in this instalment of a 2-part article, analyzes such loans of the Export-Import Bank.

THE SIEGE OF PRIVATE UTILITY CONTROL IN SOUTH CAROLINA

The Holding Company Act has, for some months past, reached the liquidating stage, wherein various operating properties are being divested of parent company control. In South Carolina a determined effort has been made by public ownership forces to capture control of one of the "orphaned" properties through protracted litigation and other means. W. D. Workman, Jr., South Carolina newspaperman, has written an on-the-spot account of the efforts of public ownership advocates to block the sale of important property in that state to private utilities.

DUE PROCESS CONCEPT UNDER ADMINISTRATIVE LAW

The concept of due process under constitutional law goes back much further than utility regulation. For decades the essentials of due process—adequate notice, opportunity to be heard, the right of impartial adjudication—have been built up in a series of decisions which, more recently, have been challenged by certain theories of modern administrative laws. Everett C. McKeage, chief counsel of the California Public Utilities Commission, gives us a judicious interpretation.

MORE POWER TO YOU!

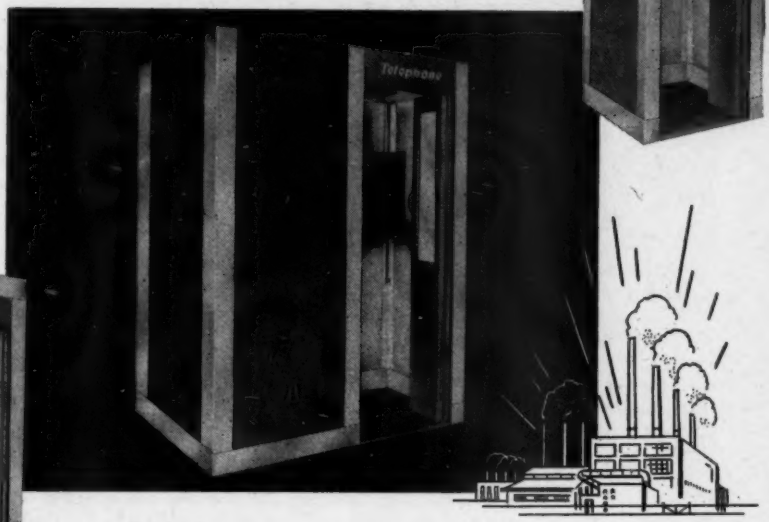
The forthcoming continuation of the Truman administration does not by any means dampen the ardor nor change the plans and blueprints of public project promoters and public power planners. Marion Hammett, former government economist and author of business articles, has scanned the inventory of public works plans in various agencies to write an over-all picture of public projects "still coming up" for congressional appropriation.

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***

SHERRON ACOUSTIC STEEL TELEPHONE BOOTHS

For NOISY LOCATIONS

in Power and Manufacturing Plants



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Sherron Acoustic telephone booths have long been accepted as standard equipment by the telephone industry. Their structural and acoustical efficiency gives them equal importance in substations, engine and generator rooms, machine shops and other noisy plant locations.

Operating conditions peculiar to such locations often create the need for special booths. They may be booths of special design, or special dimensions. Sherron can build them. They may be booths with special acoustical features. Sherron can produce them.

Over the years, Sherron has constructed telephone booths to meet a wide diversity of conditions.

Sherron booths are constructed of stainless steel or cold rolled steel. They are equipped with acoustic linings and facilities for telephone and electric light service. Special signal equipment can also be provided.

Tell us your needs—dimensions, design, acoustical requirements — we'll gladly send complete particulars.

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—MONTAIGNE

JOSEPH H. BELLEW
Counsel, Southern States Industrial Council.

"Federal control has to be stopped if America is to be stopped from becoming a socialist state."

DWIGHT D. EISENHOWER
President, Columbia University.

"A property right is one of the human rights and, if not sustained, all the others will disappear."

Excerpt from the "New England Letter," published by First National Bank of Boston.

"Master planning by government has always been offered as a panacea for economic ills, but at no time has it proved effective."

EDITORIAL STATEMENT
Chicago Journal of Commerce.

"When Congress dictates economy, government bureaus so frequently discover that only the most essential services can no longer be continued."

LAWRENCE A. APPLEY
President, American Management Association.

"That company which does not keep up with modern methods of management in dealing with both human and physical resources will not survive."

EARL O. SHREVE
President, Chamber of Commerce of the United States.

"By meeting together and working together, thinking together, businessmen will make American enterprise more productive and distribute its benefits more widely."

WILLIAM S. STREET
Chairman, committee on economic policy, Chamber of Commerce of the United States.

"Business managements in responsible positions in almost 4,000,000 separate businesses, by their day-to-day decisions, help to determine the level of economic activity."

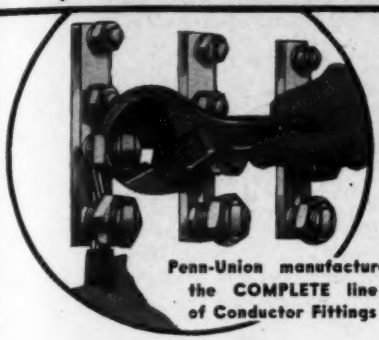
EDITORIAL STATEMENT
The Wall Street Journal.

"Recovery from the devastation of the war can only come by more work, not less; by longer hours, not shorter; by sacrifice, by pulling together. The hopes for an easy way out are dying hard."

HENRY H. HEIMANN
Executive manager, National Association of Credit Men.

"It seems paradoxical that those who become so hysterically alarmed over the communistic philosophy are constantly advocating regulations that restrict our freedom of operation. This freedom has made our representative form of government the barrier it is to a world conquest by Communism. War regulations have no place in a peacetime economy even though such economy is striving to build a strong nation adequate for the defense of its government and its people."

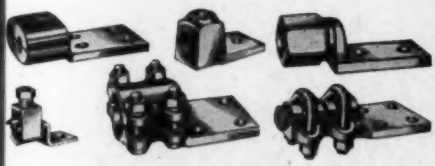
You can pick the **EXACTLY RIGHT** *lug—*



Penn-Union manufactures the COMPLETE line of Conductor Fittings

—from the Complete line

You'll find that Penn-Union offers all the good types of terminals, in a complete range of sizes: Solderless lugs to grip the conductor by Bolt, Screw, Post-and-Nut, or Multi-Slit Tapered Sleeve; Vi-tite, E-Z, clamp type, shrink fit, etc., etc. Soldering lugs and sheet metal terminals in wide variety.



Also Tee Connectors; Cable Taps; Straight, Parallel, Elbow and Cross Connectors; Bus Supports, Clamps, Spacers; Grounding Clamps; Service Connectors, etc. *Penn-Union connectors are the choice of leading utilities* —because every fitting is mechanically and electrically dependable.

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EDITORIAL STATEMENT
New York Herald Tribune.

"... the future of the private enterprise system in this country depends on a spirit of give-and-take in industrial relations and that a preponderance of dictation either by management or labor must be corrected."

DANIEL B. STRICKLER
Lieutenant governor of Pennsylvania.

"The power development along the lower Susquehanna has been done by private initiative and enterprise without any help by subsidy, grant, or gift from the Federal government or any other governmental source."

G. A. PRICE
President, Westinghouse Electric Corporation.

"On this point American history is clear: We have had general prosperity and a good living for all our people only when there was a free flow of investments into improved productive facilities and new businesses."

LAWRENCE FERTIG
Writer on economic affairs.

"While evidence mounts that government control of the economic process impoverishes each nation, there is a tendency, curiously enough, to introduce these same control ideas into international economic affairs."

BROOKS ATKINSON
Drama critic.

"... a sense of humor is not merely the knack of telling funny stories. It puts things in their proper human proportion. It governs a man's relationship to other people. It keeps him quick, alert, and friendly. It is a basic animating force."

FRED I. KENT
Director, Bankers' Trust Company.

"If we fool ourselves into thinking that we can alleviate, through government controls, the inflation which exists today, without cutting out waste and excessive expenditures by government, we will open the way to national bankruptcy."

EMIL SCHRAM
President, New York Stock Exchange.

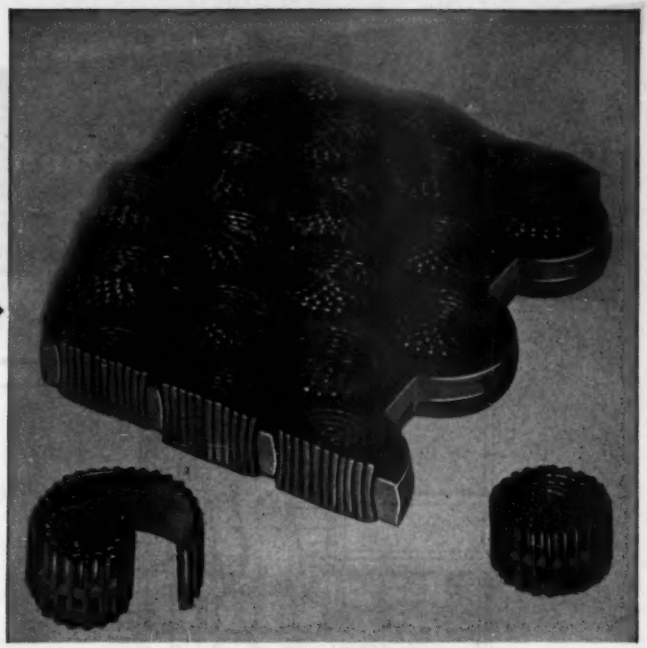
"The quest for security fails whenever inflation reduces the value of savings and cheats the frugal. Deflation will not be accepted where suffrage is universal if it means vast unemployment. Sound fiscal policy is essential to avoid both of these evils."

FRED G. CLARK
General chairman, American Economic Foundation.

"For the first time in our history this nation's industrial strength has been allowed to decrease, and if this process of economic deterioration is to be halted, the American people must be resold on the economic truth that a fair return for investments is vital to economic health and industrial prosperity."

W. WALTER WILLIAMS
Chairman, Committee for Economic Development.

"We hear and read about our capitalistic system, our private or free enterprise system, our free competitive system. They are all good terms. But I like the term, 'individual initiative system,' best. For by that term—individual initiative—we mean just what we say and we say just what we mean."



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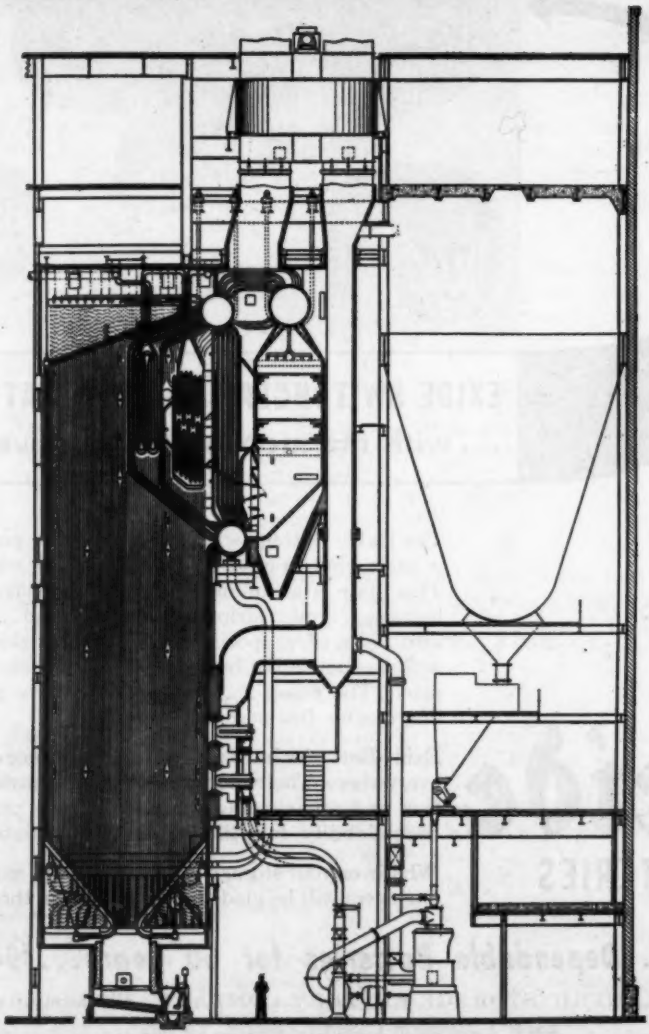
for utilities



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DEVON GENERATING STATION

THE CONNECTICUT LIGHT & POWER COMPANY

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These units are each designed to produce, at maximum continuous capacity, 600,000 lb of steam per hr at 1300 psi and 950 F.

They are of the 3-drum type with 2-stage superheaters and finned tube economizers in the rear pass. Regenerative air heaters follow the economizer surface.

The furnaces are fully water cooled with closely spaced plain tubes on all walls and finned tubes in the roof area. These furnaces are of the basket bottom type discharging to sluicing hoppers.

Pulverized coal firing is employed, using C-E Raymond Bowl Mills and C-E Horizontal Burners. Provision is made for the use of oil as an alternate fuel if and when required.

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It Means You Can Release System Capacity for as Little as $20 a Kilowatt

Yes, $20 a kilowatt! That is why—with costs up, dollars scarce and power reserves low—more and more utilities are putting capacitor installation high on the job list of their busy line crews.

What's more, your capacitor dollars can release kilowatts *quickly*—in a matter of a few weeks or less. For more information—or for the assistance of a G-E application engineer, contact your G-E sales representative. He is ready to give you quick help and short shipment. Apparatus Department, General Electric Company, Schenectady 5, N. Y.

GENERAL ELECTRIC

407-3B

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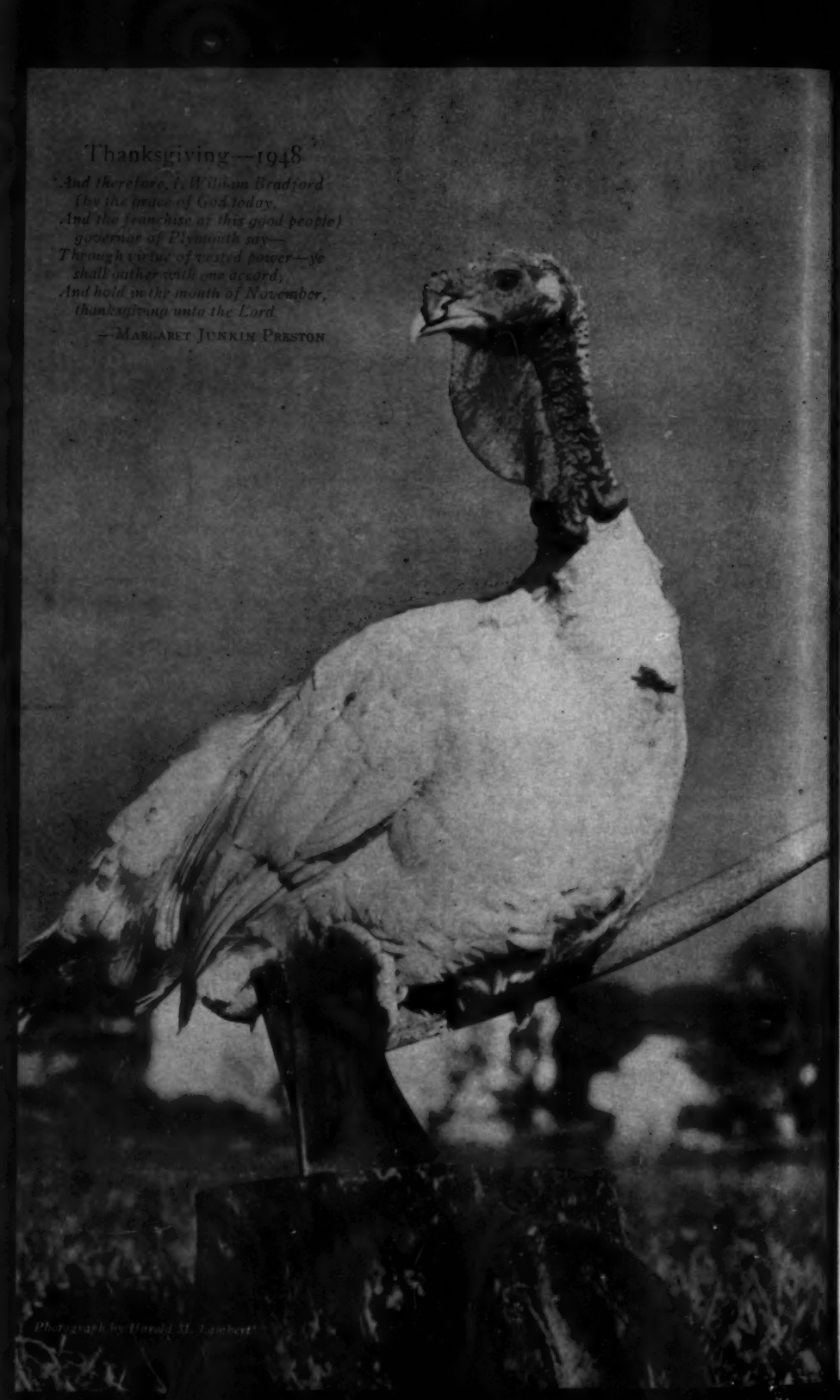
Utilities Almanack

November

18	Th	¶ *Alabama Telephone Association begins convention, Montgomery, Ala., 1948.* ¶ *New Jersey Utilities Association begins annual meeting, Absecon, N. J., 1948.*
19	F	¶ *American Gas Association third annual personnel conference ends, Chicago, Ill., 1948.* ¶ *Oklahoma Telephone Association ends annual convention, Oklahoma City, Okla., 1948.*
20	Sa	¶ *American Water Works Association, Florida Section, ends annual meeting, Panama City, Fla., 1948.*
21	S	¶ *American Society of Refrigerating Engineers will hold annual convention, Washington, D. C., Dec. 5-8, 1948.*
22	M	¶ *Georgia Telephone Association begins annual convention, Atlanta, Ga., 1948.*
23	Tu	¶ *American Water Works Association, Southeastern Section, will hold annual meeting, Augusta, Ga., Dec. 6-8, 1948.*
24	W	¶ *Interstate Oil Compact Commission will hold annual meeting, Wichita, Kan., Dec. 9-11, 1948.*
25	Th	¶ *American Gas Association, Home Service Workshop, will hold annual convention, Cleveland, Ohio, Jan. 24-27, 1949.*
26	F	¶ *American Society of Heating and Ventilating Engineers will hold annual convention, Chicago, Ill., Jan. 24-27, 1949.*
27	Sa	¶ *International Heating and Ventilation exposition will be held, Chicago, Ill., Jan. 24-28, 1949.*
28	S	¶ *American Society of Mechanical Engineers begins annual convention, New York, N. Y., 1948.*
29	M	¶ *National Exposition of Power and Mechanical Engineering begins, New York, N. Y., 1948.*
30	Tu	¶ *National Electrical Contractors Association begins annual meeting, Miami, Fla., 1948.*

December

1	W	¶ *National Association of Corrosion Engineers will hold annual convention, Cincinnati, Ohio, Mar. 7-10, 1949.*



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Public Utilities
FORTNIGHTLY

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Sale of Utility Common Stocks Through Warrants

Importance of the rôle of the small securities dealer in "selling" new issues to existing stockholders—general experiences in respect to company offerings.

BY W. TRUSLOW HYDE, JR.*
ERNEST R. ABRAMS**

THE laws of most states require that existing common stockholders of corporations organized thereunder must be granted an opportunity to buy their proportionate shares of any additional common stock, or of securities convertible into it, which the corporation may sell. This is to insure that present owners do not have their holdings "watered" by the cutting of earnings and assets into thinner slices without their consent.

To comply with these preëmptive requirements, most public utilities and other corporations issue subscription warrants to their common stockholders, generally providing a period of two or three weeks during which present holders may exercise their rights to purchase their proportions of the new shares about to be sold. Moreover, where no stand-by underwriting agreements are made with investment bankers, existing stockholders are sometimes given the privilege of subscribing for more than their propor-

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tionate shares of the new stock, with whatever stock not subscribed by stockholders under their preëmptive rights alloted to them in the proportion that oversubscriptions bear to the unsubscribed stock.

Although the subscription warrant device satisfies legal requirements, it has not operated wholly to the benefit of issuing corporations and their stockholders in many past financings. When Houston Lighting & Power offered 258,999 additional common shares at $37.50 per share in April, 1947, to its common stockholders through subscription warrants (more commonly known as "rights"), only 3,013 stockholders or 51.1 per cent of 5,902 total stockholders exercised their rights and bought only 177,263 shares or 68.4 per cent of the new common shares available to them. Likewise, when Gulf States Utilities offered 272,852 additional common shares to its stockholders in January, 1948, only 3,424 stockholders or 46.5 per cent of the 7,361 total common stockholders took advantage of their opportunity to buy more stock at $12.50 per share, and their purchases aggregated only 145,166 shares or 53.2 per cent of the total number of shares offered them.

In more detail, Cincinnati Gas & Electric offered 204,000 additional common shares to its stockholders in January, 1948, and only 7,813 stockholders or 44.8 per cent of the 17,454 total common stockholders exercised their rights. But they did buy 188,453 shares or 92.4 per cent of the 204,000 common shares offered them. Breaking down the stockholders who exercised their rights by the size of previous holdings, the company reports that only 1,091 stockholders, or 31.2 per cent of the 3,500 stockholders owning 10 shares or less, took advantage of their opportunity to buy more common stock, while rights were exercised by 988 stockholders or 39.5 per cent of the 2,500 stockholders owning an even 20 shares of common.

Grouped in another way, 4,500 Cincinnati Gas & Electric common stockholders or 40.2 per cent of the 11,176 common stockholders owning from 1 to 50 shares exercised their subscription warrants; 1,941 stockholders or 47.9 per cent of the 4,047 stockholders owning from 51 to 100 shares of common bought more stock; and 1,372 stockholders or 61.5 per cent of the 2,231 stockholders owning more than 100 common shares took advantage of their opportunity. Included in the latter group was The United Corporation, which subscribed for 31,997 new common shares, equivalent to 15.7 per cent of the 204,000 common shares offered stockholders through subscription rights and 17.5 per cent of the 188,453 shares subscribed by existing common stockholders.

A broader view of the experience of utilities offering additional common shares to existing stockholders through subscription warrants is presented in the table on page 705. Of the 15 issues listed, existing common stockholders bought 50 per cent or less of four issues and between 50 per cent and 75 per cent of four additional offerings. Only in the case of eight issues did present stockholders subscribe for more than 75 per cent of the common shares they were entitled to buy. In the light of this record, it becomes evident that something more than the mere offering of a right to buy is required to

SALE OF UTILITY COMMON STOCKS THROUGH WARRANTS

STOCKHOLDER PURCHASES OF UTILITY COMMON STOCKS THROUGH EXERCISING SUBSCRIPTION WARRANTS

Date of Offering	*Company*	*Shares Offered*	*Stockholder Subscriptions*	*Per Cent*
April 1947	Missouri Utilities	15,000	8,338	55.5
April 1947	Houston Lighting & Power	258,999	177,263	68.4
July 1947	Consolidated Natural Gas	545,672	402,407	73.7
Oct. 1947	Southern Colorado Power	29,810	10,654	35.7
July 1947	Florida Power Corp.	100,000	50,000	50.0
Nov. 1947	Central Louisiana Elec.	11,500	11,390	99.0
Nov. 1947	Duke Power	252,572	210,282	83.3
Nov. 1947	Indianapolis Pr. & Lt.	214,451	76,367	35.6
Nov. 1947	Northwestern Pub. Serv.	82,000	17,686	21.5
Nov. 1947	Pacific Gas & Electric	626,136	588,543	94.0
Jan. 1948	Gulf States Utilities	272,852	145,166	53.2
Jan. 1948	Central Ohio Lt. & Pr.	12,200	8,103	66.4
Feb. 1948	Dayton Power & Light	170,000	150,000	88.2
Feb. 1948	Southwestern Pub. Serv.	103,113	85,545	82.9
April 1948	Missouri Utilities	22,750	22,403	98.5
	15 Issues	2,717,055	1,964,147	65.1

induce existing stockholders to exercise their privilege of buying additional common shares of corporations whose common stock they already own.

THE major reason for the failure of the subscription-warrant device to sell more new common shares to existing stockholders is well known to investment bankers but seems to be overlooked by many utility executives. It is a well-recognized fact in investment and brokerage circles that investors do not *buy* securities. No matter whether bonds or preferred stocks or common stocks, and no matter how familiar investors may be with the issuing corporations through prior ownership of their securities, the great majority of investors must have securities *sold* to them by securities dealers in whom they have confidence.

In predepression days practically all investment bankers employed staffs of salesmen to travel those sections of the country where surplus funds existed and to call in person on country banks and individual investors. Sometimes, only a $100 bond or a share or two of stock were sold, but these sales bulked large in the aggregate. And despite the cost involved, profit margins in securi-

ties were wide enough in those days to make the effort pay. With the wider adoption of competitive bidding for security underwritings, which sharply reduced bankers' spreads, and with the adoption of a "cheap money" policy by the Federal government to lower the cost of financing its annual deficits, this method of security distribution became too costly, about fifteen years ago, and had to be abandoned.

REPLACING the bond salesman who used to "pound the bushes" are small securities dealers, who have opened offices in practically every community of 10,000 or more population in the land. Because their overhead expenses are not so high as the "golden plated" outfits of Wall Street, they are able to make a living out of the greatly reduced commissions allowed them by the large security underwriters. Today, these small dealers account for the sale of securities to nearly all investors except the large life insurance companies and similar aggregations of investment funds located outside the large metropolitan areas of the country.

Although no exhaustive surveys have ever been made, it is the consensus of well-informed investment bankers that as many as three-quarters of all corporate stockholders in the country today were first induced to buy their original shares by security dealers and it is natural that these stockholders should turn for advice to the dealers who first "put them in the stock," when a corporation in which they own an interest offers them a right to increase their holdings. In this way, small securities dealers, having first made stockholders of their customers, are forced to become parties to the stock-selling endeavors of corporations, usually without compensation and without any recognition from the financing corporations.

The security dealer makes his living by buying and selling securities at a profit—a rate of profit, when based on the dollar volume of business handled, that would make the spread between the delivered cost of electricity and the price charged householders look exorbitant. Only through large volume can he build his small commission up to what makes for a decent living. Imagine, then, his feelings when some customer walks in with a right to subscribe for 20 additional common shares of the Typical Electric Corporation at $20 per share and asks his advice.

HAVING induced the customer to buy the stock a couple of years ago, he can hardly tell him it still isn't a good buy. But if he tells the customer to exercise his rights, he is taking bread out of his own mouth in two ways. If he tells the customer to buy the stock, the signed right will be handed to him with the request that he handle the transaction for the customer. And doing so will mean an actual loss of time and out-of-pocket expense in mailing the warrant with its accompanying check to the transfer agent and delivering the certificate for the new shares to the customer when it arrives. But, more important, by asking whether to exercise the right, the customer has indicated that he has some extra cash for investment, out of which the dealer could make a profit by selling him something on "the shelf."

Accordingly, the securities dealer is likely to tell his customer that he has

enough Typical common in his safe deposit box and should diversify. He'll probably tell the customer to sell his warrant for what it will bring, consider it an extra dividend, and buy 40 shares of Amazing Gas common that was offered at $10 a share only yesterday by Whiting, Morganbilt & Co. Since the underwriters are allowing a commission of 25 cents a share to dealers, he stands to make $10 on the deal as compared with a loss of time and money if the customer uses his funds to buy more Typical common through exercising his warrant. And no harm is done, since Amazing common at 10 is just as good a buy as Typical common at 20.

BEING human the security dealer's attitude would probably be more cordial to Typical, if he could make a small profit out of exercising the rights for his customer. Recognizing this streak in human nature, Columbia Gas System has devised a scheme for insuring the success of its recent offering to existing common stockholders of 1,223,000 shares of additional common stock at $10 per share at the rate of one share for each 10 shares presently held. It has mailed warrants to common stockholders of record of October 5th, giving them the right to purchase their proportionate number of shares of the new common until the close of business on October 28th, and has given them the added privilege of subscribing for additional shares, subject to allotment out of the shares not taken by subscription under preëmptive rights. And it has further arranged for the payment of 25 cents per share to any security dealer who is responsible for the exercising of a subscription warrant and 25 cents per share for all common stock subscribed and issued in excess of the preëmptive shares specified in the warrant.

Since a number of Columbia common stockholders own more than 1,000 shares each, the maximum fee payable for exercising a single warrant is limited to $250. By offering security dealers an incentive to recommend exercising of rights and by pricing the new shares under the 1948 low and nearly 2 points under the current market, a high proportion of subscriptions by present common holders seems assured.

THE only possible fly in the Columbia ointment is that it hasn't been liberal enough with security dealers when oversubscriptions result. On April 5, 1947, Missouri Utilities, serving 56 Missouri and 2 Arkansas com-

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munities principally with electricity, issued subscription warrants to its common stockholders, giving them the right to purchase their proportionate parts of 15,000 additional common shares at $20 per share. At the same time, it offered a fee of 25 cents per share to security dealers who coöperated in securing the exercise of stockholder warrants. Of the 15,000 shares offered through warrants, common stockholders bought only 8,338 shares or 55.5 per cent of the total number of shares offered.

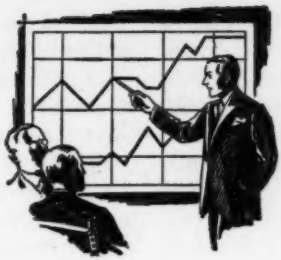
Profiting from this experience, Missouri Utilities changed the fees to be paid security dealers, when it offered 22,750 additional common shares to its stockholders through subscription warrants at $12.50 per share on April 13, 1948.

In addition to the 25 cents per share paid for encouraging the exercising of warrants covering the preëmptive shares to which stockholders were entitled, Missouri Utilities offered 40 cents per share for all stock subscribed and issued in excess of the number of shares named in the warrants. Dealer response to the more liberal terms of the second offering was highly satisfactory. Through the exercise of preëmptive rights and oversubscriptions, existing stockholders bought 22,403 shares or 98.5 per cent of the 22,750 additional common shares offered to them.

Left to their own devices, far too many stockholders still regard a subscription warrant as merely an invitation to buy stock, like a broker's prospectus, and attaching no value to it they file it in the wastebasket. When that happens, both the issuing company and the stockholder lose. But if the security dealer is paid for his effort, he'll phone each of his customers owning the stock as soon as the rights are mailed and keep them from being thrown away. More than that, he'll see that many of them are exercised.

UNFORTUNATELY, when warrants are sold, the stockholder generally receives only a fraction of its true value. Issuance of warrants by a corporation puts the entire investment community on notice that a sizable block of additional shares will soon enter the market and many of them may not find a permanent owner for weeks or months. This has a depressing effect on the market and the shares usually sell lower than before the new financing was announced. Naturally, this also means that the subscription rights will sell below their true worth. Paradoxical as it may seem, subscription warrants have their greatest worth just at the time they expire and become worthless.

Accordingly, even if a stockholder of a corporation selling more common stock has no desire to increase his holdings, he can get a higher price for his rights as a rule by exercising them, holding the added shares for a few weeks or months and selling them after the additional shares have found permanent lodgings in strong boxes and the price of the stock has returned to its former price level. Obviously, issuing corporations can't play nursemaid to all of their stockholders, but the security dealers of the country, collectively, can and will do the job intelligently and efficiently, provided they are paid to do it.



Regulation and the Equity Capital Problem

The necessity of creating an investment attractiveness for utility common shares, a task, says the author, that can be accomplished only by holding out to the investor an earning and dividend potential that will fairly, reasonably, and completely recognize the risks inherent in utility common stocks.

By MERWIN H. WATERMAN*
PROFESSOR OF FINANCE, UNIVERSITY OF MICHIGAN

JUST because public utilities, particularly the gas and electric companies, are subject to the widest possible variety of regulation by state commissions, the Securities and Exchange Commission, and the Federal Power Commission, is no sign that these industries and their component units are not also exposed to the economic facts of life. Too often too many people assume that the regulatory process so comprehensively applied serves to insulate the utilities from the surges of business conditions, thus permitting the managements of our gas and electric companies to go their normal way oblivious to economic change. This is not a true picture, and the sooner the real facts are recognized and understood by regulatory authorities, by investors, and by those in management not fully awake to these facts, the sooner will the current problems of the utilities receive that consideration necessary to motivate and stimulate the growth of investment required to keep the gas and electric utilities abreast of the demand for their services.

The current complexities of utility operation and financing have been variously described by many writers in recent months, but they can all be boiled down to two general problems inevitably related. One is the problem of operation in a period of "full employment," high level of business activity,

*For additional personal note, see "Pages with the Editors."

and inflation. How these conditions have crept up on the utilities is perhaps best and most briefly depicted by the reaction of industry-operating ratios which shows that expenses, other than taxes and depreciation, have recently outstripped the increases in revenues in the upward chase. Data for class A and B electric utilities furnished by the FPC show the increasing costs of operation sneaking in, after the industry's most profitable year of the decade in 1939, to push the operating ratio from 42.1 per cent in that year up gradually to 42.8 per cent in 1942, more noticeably to 45.8 per cent in 1944 and 1945, and then—with a bang—to 48.2 per cent in 1946 [1] and 52.8 per cent in 1947! [2] And this in spite of output and dollar revenue increases (without rate increases) which in theory should have multiplied the profits in these so-called "decreasing cost" businesses. In the gas industry, even when 18 natural gas companies are included in a total of 43 representing the sizable gas utilities, the recent trend has been in the same direction; the operating ratio (*ex* taxes and depreciation) jumped from 50 per cent in 1945 to 53 per cent in 1946.[3] In face of these facts who can say that utilities operate in isolation, unaffected by economic and business conditions?

MUCH more could be said to emphasize the operating plight of the gas and electric utilities, but enough of that for now. The second main problem that demands attention is the financial one; the financial problem that grows from the war-delayed and post-war-stimulated expansion programs of the utilities. In some industries expansion programs are undertaken in anticipation of new demands; in the utility industries at present the demands are already there, many of them are on the line, and the companies are being pushed into expansion. In the electric business fuses and breakers are ready to blow; the FPC reports a "New Record Peak Load Reached in 1947," [4] and shows December peak loads for that year of 47,500,000 kilowatts in face of a reported net assured capacity of 44,100,000 kilowatts, indicating a utilization factor of over 100 per cent.

Likewise in the gas industry pipe lines are suffering from low pressures and many sections in the North and Northeast are confronted with allocations, rationing, and space-heating restrictions. The demand is not a future one; it is already there, created and stimulated not so much by the salesmanship of the utilities as by the rapid rise in the costs of competitive fuels such as coal and oil.

IT is difficult for more reasons than one to pin down the real expansion requirements of the gas and electric utilities in terms of their dollar magnitude. The electric industry talks in terms of $6 billion up to 1951; the gas industry estimates are much less specific but conversations run from $3 billion to $3.5 billion needed by 1953. How much of all this is needed absolutely to restore reserve capacities to safe levels is debatable in view of improved efficiencies and interconnection possibilities.

[1] "Statistics of Electric Utilities in the United States," Federal Power Commission, 1937-1946.

[2] FPC Release No. 3690.

[3] From data compiled as "Pertinent Financial Yardsticks," by Robert E. Ginna, vice president, Rochester Gas & Electric Corp.

[4] FPC Release No. 3711.

The inflationary aspect of our economy in its present stage confronts us with another variable—the dollar, a factor which not only has its effect on operating conditions as noted above, but also on this problem of financing expansion. When the electric industry talks of generating capacity increases yet to come running as high as 40 per cent of 1946 or 70 per cent of 1939 installations, those figures may not convey the full financial impact of the program. One source showed, as of January 1, 1948, a purchasing power index for the utility construction dollar of only 62 cents, based on a 1935-1939 average of 100 cents.[5] Hence to get a prewar dollar's worth of equipment the financial requirements of the program will have to be upped 61 per cent; *i.e.*, it will take $1.61 to acquire the capacity that could have been acquired for $1 in 1935-1939. The same source of data for gas plant construction costs indicates a 58-cent dollar, or a 72 per cent increase in costs on January 1, 1948, as compared with the 1935-1939 average. Reproduction cost studies of one large gas property indicate that current reproduction costs would be 240 per cent of "original cost"; of course, this is an old property, much of which was built when construction cost indexes were below the 1935-1939 level.

[5] Computed from "Electric Utility Construction Cost Index (North Central Section)," compiled by Whitman, Requard and Associates and B. L. Smith & Associates and published periodically in the *Engineering News Record*.

It is sufficient to point out, however, that the capital requirements for new capacity these days must be computed at much higher levels—60 to 100 per cent higher—than we were accustomed to in "the good old days." Regardless of which figures you may use, however, there is evidence of substantial capital needs to satisfy the immediate requirements and to provide for some expectation of continued growth. It is the struggle to meet this new capital requirement that is producing a crop of gray hairs for utility managements and investors.

Perhaps this review of the economic facts of life was not necessary to establish the seriousness of the capital need in the utility industry in everyone's mind, but there it is. Now the question is how to finance that need. It must be recognized that there is no spigot to turn and no legislative appropriation to pass from which the required capital will automatically flow; at least not as long as utilities remain in the category of private enterprise. This capital must be raised in the competitive market and the utilities must vie with other opportunities for investment presented at home and abroad by public and private institutions and enterprises. Gas and electric utilities, not being edible commodities, can attract that capital only

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on the promise or the opportunity to afford an adequately competitive return to the investors. In the category of promises (bonds) the industry must offer 7 per cent for high-grade issues to wealthy individual investors in the $70,000 to $80,000 surtax bracket in order to compete with tax-exempt municipal bonds at 2 per cent. To corporations other than insurance companies high-grade debt securities must yield in excess of 3.25 per cent to meet this same competition and a similar yield must be offered to the less wealthy individual investors in the surtax bracket as low as $12,000-$14,000. In the lower-grade bond or preferred stock categories of capital-raising instruments the costs of capital must be sufficiently higher than the rates above to compensate for the higher risks incurred without opportunity for residual reward.

DAILY experience demonstrates that utilities have not been paying rates anything like those indicated or implied by the characteristics of the capital market just described, and the reason is simple. They sell high-grade promises and preferred stocks to the practically tax-exempt life insurance companies where the only effective market competition lies in the artificially supported government bond yields at an approximate level of 2.45 per cent! The supply of long-term cheap capital from this source seems endless with rates of growth in investable life insurance company assets providing $2.5 billion to $3 billion per annum.[6] This figure is large in relation to the annual new capital offerings of utility bonds (including telephones) which only in 1946 and 1947 reached above $500,000,000 per annum.[7] Let's not worry about the absorption power of this specialized market for high-grade bonds; let's worry instead about maintaining the quality of bonds offered.

The gas and electric utilities can expect to extract new capital from life insurance companies only so long as utility earning power and equity value are adequate to provide protection to the credit and to prior lien stock issues salable to these investment institutions. Hence the utilities have a dual interest in raising residual ownership or common stock equity capital; one, to provide a part of the sinews of construction, and, second, to furnish the basic foundation for any new prior lien securities. It is a job for individual company analysis to determine how much residual equity capital will be required to satisfy this requirement in specific cases; aggregates mean little or nothing. I am content to say that a substantial number of utilities will need a substantial amount of common equity capital to contribute to and to support the credit of the industry before a $6, $8, or $10 billion expansion is ended.

CERTAIN characteristics of this current utility expansion program have been referred to previously and the one that ties into this financial problem particularly is the fact that much of the expansion is designed to restore reserves and by that very token will not directly or proportionately increase the earning power of the operations. Further, even that portion of the new in-

[6] As reported by 36 life insurance companies; U. S. Department of Commerce, *Survey of Current Business.*

[7] See "Statistics of Capital Flotations," *Commercial & Financial Chronicle.*

Adequate Supplies of Gas and Electricity

"ADEQUATE supplies of gas and electricity at reasonable prices are essential to our mode and standard of living. If failure to expand results in unsatisfied demands of industrial, commercial, and residential consumers of gas and electricity, that will be marked as a failure of private utility management and regulation."

vestment destined eventually to produce added revenues and earnings will in the nature of the case lag considerably in its boost to profits. Certain offsetting factors to these influences are prominently mentioned by engineers with particular reference to the electric industry. They speak of the increased efficiencies of new generating equipment (in terms of pounds of coal per kilowatt hour), less "nickel plate" and more utility in all phases of construction and a reduced need for safety factors based on war-born interconnection installations and experience.

To some extent the gas industry may find economies of the same sort that will tend to balance the high dollar costs of planned expansion. Certainly in both industries the expensive capacities being used to meet current demands can be abandoned or restored to stand-by use when the new installations are warmed up and on the line. In the balance the profits of utilities should receive significant support when, as, and if the construction programs are carried forward far enough. However, "top drawer" bonds and prior lien stocks cannot be sold on a "when, as, and if" earning basis; such is the nature of risk capital, and common stock alone will fill that bill.

WHILE cogitating the need for and the function of risk capital in the utility business I would like to develop further the idea that there are capital risks present in the utility business and to remind anyone who will heed that, regulation, so-called "monopoly," and "necessity of life" to the contrary notwithstanding, there is no guaranty that dollars in the utility business will either earn a competitive return or even be protected as to principal. Particularly under conditions of today with spiraling prices of labor and material.

Perhaps even more important than the height of the ratio is its make-up;

on the revenue side is a figure derived from the highest load factor in the peacetime history of either the gas or electric industry — a height that suggests vulnerability to change — and it can change in only one direction, down. Examine the expense picture for a moment; I haven't for any large number of companies, but I found in 1947 for one large electric operation and one combined gas-electric company labor costs as high as 43 per cent and 33 per cent, respectively, of total operating expenses where the corresponding operating ratios were 65 per cent and 53 per cent. Need we say more about the flexibility and controllability of these large payroll cost items? Labor is not organized to coöperate and facilitate the reduction of these costs if revenues should take a dip, and I suggest that bond interest has been joined by labor costs as a fixed charge in utility operations, thus providing additional leverage which will operate most disastrously on the down side. These risks are greater today than ever before; quite aside from the current dollar amounts of payroll expenses, I emphasize the rigidities that have crept into the situation.

THE payment for the assumption of risk is, barefacedly and unblushingly, *profit*. Much has been said and written better than I could say or write it about the stultification of the profit incentive in our economy by the present tax structure. I will not say more except to point out to those who see this as a problem not peculiar to the utilities that they are mildly wrong. The utilities are harder hit than are most other enterprises when it comes to the attractiveness of their stocks as an investment by the progressive tax rates and double taxation which characterize our present tax system.

For one thing it is as naturally the order of the day in a seller's market for industry to pass on its business taxes to the consumer in the form of higher prices as it is to pass on its labor costs. This is not the natural order in utility situations; although regulatory bodies recognize such taxes as expense, we have seen some of them used as the bases for rate reduction or refund orders. At least this occurred in excess profits tax days, and even now it could be argued by someone "on the make" that utility investors would have to take only 62 per cent of a rate reduction in face of a 38 per cent income tax!

Further, with respect to the tax situation, note that common stock investors ordinarily are motivated by the chance for either or both of two kinds of profit, a return in the form of dividends and appreciation through growth. The former in all industries alike is subject to normal and surtax rates. The latter, appreciation, is subject if realized only to the smaller capital gains tax; but where are the opportunities for any appreciation and growth in utilities whose investment "britches" are already strained at the seams? Under regulation there is little or no tendency to permit such unseemly profit, and the attractiveness of the utility investment in an inflationary situation suffers severely in comparison with industrials or even with rails whose growth potentials within the limits of regulation are enormous—if they could only make it. Thus there is reason to believe that utility companies are at a competitive

disadvantage in any attempt to raise equity capital under present-day conditions.

THESE factors I have cited are not new discoveries; there is evidence in the market that someone thought of them before I did. Consider the comparisons outlined below.

Any way you look at these data the utility common stocks have lost ground relatively as media of investment, and their attractiveness as capital-raising instruments has deteriorated in face of need. Some of the market may be crazy all of the time and all of the market may be crazy some of the time, but the market for utilities relative to other industry opportunities looks like a true reflection of the utility predicament. The other shares are only 7 per cent to 9 per cent below their crazy peak of 1946, but utilities are 16 per cent below a peak which wasn't as high relative, say, to 1943. In 1948 the recovery from 1947's reactionary lows was only 11 per cent as compared with the more vital rails with a 51 per cent recovery and industrials with 18 per cent. Of course, a good part of the answer to the railroad recovery rested on the across-the-board rate increases granted by the Interstate Commerce Commission which so vastly (relatively) improved the profit potentials of the carriers.

THE utilities need equity funds, common stock money, at exactly the time when their capital attractiveness is dimmed by brighter opportunities on the other side of the fence where the grass not only looks greener but where it is permitted to grow by the normal operation of the price system. Perish the thought that utilities should be removed from the confines of regulation. Rather I suggest a concerted effort on the part of utility managements and regulatory authorities to recognize the economic facts if the utility industry is not just to survive but to serve. Adequate supplies of gas and electricity at reasonable prices are essential to our mode and standard of living. If failure to expand results in unsatisfied demands of industrial, commercial, and residential consumers of gas and electricity, that will be marked as a failure of private utility management and regulation.

What to do about it? Utilities can today sell common stocks; witness the fact that a secondary market for such stock exists, and that a number of utilities have sold common shares for new capital purposes within the past two years. Although Commissioner Mc-

COMPARATIVE PERFORMANCES OF DOW-JONES STOCK PRICE AVERAGES

	Industrials	*Rails*	*Utilities*
1946 High	212.5	68.3	43.7
1948 High (to June 21st)	193.2	62.3	36.0
Per cent 1948 below 1946	9.1%	7.3%	16.0%
1947 Low	163.2	41.2	32.3
1948 High (to June 21st)	193.2	62.3	36.0
Per cent 1948 high recovery over 1947 low	18.3%	51.2%	11.5%

Entire of the Securities and Exchange Commission pointed out that "investors absorbed almost $300,000,000 of utility common stocks in 1947," [8] he did so without distinguishing either the amount represented by holding company dispossessions or the stock subscribed by Bell system employees in American Telephone and Telegraph Company in an amount exceeding $180,000,000.[9] I could find only 18 issues of common stock sold for new capital purposes by electric and gas-electric utilities in 1947 and the gross proceeds to issuers totaled only about $60,000,000. This, of course, does not include the offerings of gas pipe-line companies which don't quite yet deserve the same unattractiveness attributed to gas distribution and electric operations. At any rate Mr. McEntire's conclusion that "The only reason investors did not take more common stocks in 1947 is that more was not offered" takes no account of the fact that additional earnings or earning potentials are required to support new capital issues whereas "bail outs" can be more readily effected on the basis of existing earnings.

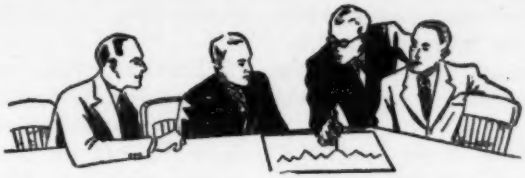
YES, common stocks can almost always be sold—at a price. But what is a reasonable price? Some say it makes no difference as long as preëmptive rights are observed; go ahead and force additional capital out of existing owners by tagging the stock with a bargain price. Let's stop right here to clear the confusion on that point.

Mathematically it is possible to force common stock investment through the medium of privilege subscriptions, but this method is not without limits of equity and practicality. As an illustration, suppose a company had common shares traded in the market at $60 per share and the stockholders are offered the right to buy additional shares at the rate of one for 5 at $50. Only if this new $50 investment will earn enough to be worth $50 can equity be maintained and dilution be reasonably limited. In this case the equitable limit of dilution would be $58.33 $(\frac{(5 \times 60) + 50}{6})$. If new earnings are not forthcoming to justify the $50 investment the dilution will approach $50 $(\frac{(50 \times 6) + 0}{6})$ and the practical motivation for the additional investment will vanish. Of course, a bargain price method could still be used—say $40—even though no earnings are expected, and the investor would be forced to buy more stock to protect his position, but that would be a shotgun hold up, pure and simple. The practical point in this connection is that continuous and extended dilution cannot take place without new earnings and that the privilege subscription is not the panacea for equity capital needs regardless of value.

I HOPE it has been established (a) that gas and electric utilities need capital to finance their expansion programs, (b) that they need common stock equity capital in considerable amount, and (c) that there is no easy and automatic method of selling quantities of common stock at reasonable prices under present conditions. Can those conditions be changed within the pattern of our regulatory process?

[8] As reported in *The Wall Street Journal*, June 1, 1948.

[9] Fifty per cent of 2,800,000 shares were reported subscribed on November 6, 1947, at prices $20 below the market (1,400,000 shares at $130 = $182,000,000).



"Original Cost" As a Rate Base

"... it is perfectly evident that 'original cost' has lost all significance as a rate base, because it is so far divorced from real economic considerations. But by the same token 'cost of reproduction' is but a wave of the hand at a passing fancy. Within the ring provided by regulation the utility that stays on its feet must be able to roll with the punches and not be handicapped by finding its financial arm tied down to a sling when it reaches out for some capital."

Two general suggestions have been discussed by utility executives and in academic and financial circles. One has to do with the marketing problems surrounding the distribution of new common shares. If it's assumed that investable funds are available, it is agreed that those funds do not exist in large concentrated amounts in the hands of a few institutional investors; they exist a hundred dollars here and a thousand dollars there among individual investors. This presents a distinctly different security marketing problem than utilities have encountered in the sale of bonds and preferred stocks. Common stocks priced at the market will have to be *sold* in the old-fashioned sense; door bells will have to be pushed and pavements pounded. This process cannot be carried on at one-half to 2 per cent of the selling price; the industry will have to be reconciled to bankers' spreads wider than those to which they have become accustomed in bulk sales of less risky securities.

Some utilities, such as Pacific Gas and Electric Company and Dayton Power & Light Company, have effected a privilege subscription sale of common stock "underwritten," so to speak, by the stockholders themselves; *i.e.*, each stockholder has been permitted, subject to allotment, to subscribe for stock beyond his pro rata shares at the privilege price. This is one possible answer to the higher underwriting costs that are inevitable on residual securities.

Further it is increasingly recognized that the competitive bidding process cannot be used effectively in the sale and distribution of common equities, particularly new capital issues. Apparently even the Securities and Exchange Commission agrees with this conclusion if the exemptions to Rule U-50 granted by the commission in connection with some recent stock offerings may be taken as a sign. The time, effort, and uncertainty involved in the necessarily wide distribution of this more

volatile security make it unreasonable to expect firm purchases or stand-by underwritings on the somewhat blind and always "quickie" basis involved in competitive bids.

THE second and more momentous problem is that of creating an investment attractiveness for utility common shares — a task that can be accomplished only by holding out to the investor an earning and dividend potential that will fairly, reasonably, and competitively recognize the risks inherent in utility common shares. Adequate compensation to these investors will be regulated, not by any commission, but by the competitive market for equity capital. The market knows that there are risks in the utility business, risks which are levered and magnified by fixed charges in utility company financial structures. The market knows that some portion of equity capital required today will not of itself produce proportionately expanded earnings because it is needed to restore normal capacities and normal load factors. The market knows that expenses of operation have been increasing in amount and in rigidity while revenues have been almost solely a function of volume, with coal cost escalator clauses giving modest help under some rate structures.

In face of these facts and risks, new and additional equity capital will be attracted to the utility industry only if there exists the opportunity for management to show profits that will support the larger capitalizations. If volume will not produce the needed revenues and profits, there is only one other answer — rate increases, and rate increases involve the gas and electric industries in the problem of proving their needs to various regulatory commissions.

THE outline of the current business and financial problems heretofore presented may help to clarify the utilities' position. It may help to determine which, when, and why a utility needs the support of regulatory authorities in terms of those rate increases which will give the investor some assurance that the utility industry is not just a one-way street that goes nowhere while other industries travel the high road to the increased revenues and (perhaps) earnings which have been and are the accompaniments of inflation.

It is useless and hopeless to generalize about the revenue needs of either the gas or electric industry or both, as such. Only individual analysis of particular cases can determine whether, as a matter of judgment, a rate increase is needed to attract necessary equity capital to a situation which, from the standpoint of public and consumer interest, needs the additional physical and financial strength. We assume two things: (1) that consumers have a right to good utility service and that the regulatory process is designed to work that end, and (2) that consumers' needs are to be satisfied by private enterprise operating under the profit motive. The job is to create that environment under which strong public utilities can exist, expand, and serve; that is the desired "end result."

THE original cost and even the cost of reproduction are concepts too academic to have any bearing on the practicalities of the present uncertain and changing situation. (This from a college professor!) The earning re-

quirement measures the market's terms when capital is needed unless some "higher power" should direct or subsidize the flow of capital in the utility direction.

What has been called the "end result" approach to this problem of attracting capital cannot be applied to aggregates, but a hypothetical illustration may serve to demonstrate a reasonable test of a utility's needs. Let us assume that an operating utility needs $50,000,000 to finance an immediate expansion program and that the dictates of sound finance indicate that $40,000,000 of that capital should be in the form of residual equity; this to provide the base for future borrowing perhaps and to maintain the credit and investment standing of the issuer.

The company's common stock is presently selling at $40 per share while paying a $2.50 dividend. (Looks like a middling sort of a stock with its 6.3 per cent yield.) But remember this is a price in the secondary market with nominal trading volume and that it expresses a price for an equity in a company "as is," earning about $3.50 per share with a high load factor. One million more shares must be sold at $40 each to provide the required $40,000,000 of equity funds, and what must be the new yield potential to cover the risks involved? The regulatory commission cannot be asked — or if asked, could not give — a guaranty that this new capital will pay its present market yield of 6.3 per cent, yet new capital must be attracted which must assume the risks of expansion.

UNDER current market conditions it would not seem unreasonable that companies be given a chance to pay as much as 7 per cent if they can do so with efficient management under reasonable rates. Value of service cannot today set a very low ceiling on gas and electric rates, hence a dividend yield potential of 7 per cent or even 8 per cent would be well within such a limit and normally would not result in excessive customer charges. On the other hand, it would put the company's common stock in a more effective competitive position when compared with alternative investment opportunities. This 7 per cent potential on the company's shares should also be backed by earnings sufficiently in excess of the dividend potential to allow not only for the normal risks of the enterprise but for those that are rooted in the very inadequacies of the earning figures themselves; figures which we know are today inaccurate expressions of future earning power in face of depreciation charges based on cost and replacement requirements which will have to be met at spot prices. As a matter of policy (and practice) a 70 per cent payout of

¶ "IT *is useless and hopeless to generalize about the revenue needs of either the gas or electric industry or both, as such. Only individual analysis of particular cases can determine whether, as a matter of judgment, a rate increase is needed to attract necessary equity capital to a situation which, from the standpoint of public and consumer interest, needs the additional physical and financial strength.*"

SUMMARY OF COMPUTATION OF REVENUE REQUIREMENTS TO ATTRACT NEW EQUITY CAPITAL (HYPOTHETICAL CASE)*

1. Number of additional shares required at $40 per share to attract $40,000,000	1,000,000
2. Number of shares already outstanding	4,000,000
3. Total shares outstanding, *pro forma*	5,000,000
4. Dividend potential at 7% on $40 ($2.80 per share)	$14,000,000
5. Retained earning potential at 3% on $40 ($1.20 per share)	6,000,000
6. Interest requirement on bonds to be outstanding $200,000,000 at 3%	6,000,000
7. Total gross income requirement	$26,000,000
8. Present annual gross income	21,000,000
9. Additional gross income requirement	$ 5,000,000
10. Additional gross revenue requirement, assuming 20% gross income margin	25,000,000
11. Provided by growth in next two years at 10% rate on present annual gross of $105,000,000	22,050,000
12. Revenue to be derived from rate increase (end result)	$ 2,950,000

*In this hypothetical case no account is taken of interest during construction which might affect Item #6 nor of additional earning assets derived from retained profits (Item #5). These omissions would tend to counteract each other in the final conclusion.

dividends would be plenty, and this sets up an earning potential requirement of (7 per cent ÷ 70 per cent) or 10 per cent on the market price.

Before summarizing the effects of this reasoning to a conclusion in terms of rate increase requirements, let us recognize that some growth of revenues may result from and accompany this particular phase of the expansion program; perhaps a recently experienced annual rate of increase of 10 per cent will continue, and (we hope) the current gross margin after taxes and depreciation ($\frac{\text{gross income}}{\text{gross revenue}}$) will persist at 20 per cent, if increasing labor and material costs of operation can be offset by the economies which will grow from the modern and more efficient installations. Upon the basis of these assumptions and that of $200,000,000 of 3 per cent bonds outstanding ($190,000,000 plus $10,000,000 to finance one-fifth of the expansion) the arithmetic in the above "summary of computation" is predicated.

ANY utility which uses this test to estimate its own position with respect to its ability to attract common equity capital must, of course, support each step to the end result by facts and defensible judgments. A marked change in security market conditions or levels would obviously change the answer — as it should logically, because the requirements to attract capital to any given situation depend on

general money rates and security prices. Expected variations in revenue growth, changes in operating ratios, or taxes could bring about a new answer almost overnight, but whoever should think that value can be a stable element when resting on such uncertain sands, even in a regulated utility. If a sane, reasonable analysis of a utility situation based on this procedure shows an "end result" equal to zero, that utility should consider itself fortunate and hie itself promptly to market for capital that will finance and carry the risks of future operation.

As a concluding admission I would like to say that about ten years ago I had convinced myself that utilities would probably be well advised to go along with "original cost" as a rate base. I then assumed that under reasonably stable price conditions the single variable of "rate of return" could suffice to support and nourish a good utility and provide it with capital for its expansion in normal course. The time, effort, and energy spent on figuring and arguing about "cost of reproduction" would, I believed, become progressively more futile as that measure approached "original cost" through property replacements and additions.

Now, under present conditions, it is perfectly evident that "original cost" has lost all significance as a rate base, because it is so far divorced from real economic considerations. But by the same token "cost of reproduction" is but a wave of the hand at a passing fancy. Within the ring provided by regulation the utility that stays on its feet must be able to roll with the punches and not be handicapped by finding its financial arm tied down to a sling when it reaches out for some capital. A little more spark and punch will be needed if companies in the gas and electric industry are to compete effectively in this helter-skelter rumpus.

Economic peace and quietude we may love and yearn for, but we don't have it and the utilities can't create it simply by being down and taking the count.

The utilities may well be proud of the record they have made in rates and service, but there's nothing to be gained now by proudly standing by and admiring the maker. Regulatory authorities who recognize the significance of our economic status cannot be blind to the fact that their jobs as regulators will disappear if the utilities are permitted to fail in the current crisis; if private enterprise does not deliver, there is one more paving stone on the road to public ownership. Ask the English how that works!

"TRANSIT, which many have feared was dying, is going into the future with unprecedented strength. The public now appreciates far more than ever before the truth that the answer to the traffic congestion which is strangling the cities is public transit. The most economical user of street space, and the swiftest, surest, safest, and most convenient transporter of people, transit has a vital place in the economy of every city."

—GUY C. HECKER,
Executive manager, American Transit Association.

Keeping Utility Service Up In a Great Flood Emergency

A public obligation which hundreds of employees of Washington Water Power Company, often without sleep, sometimes without food, faithfully fulfilled during the last great overflow of the waters of the Columbia river.

By CLEM STEARNS*

SUMMER sun and wind have now dried out the flood-soaked Pacific Northwest, giving pause for husky power company crews and engineers to sit around over an extra cup of after-dinner coffee and reaccount stories that will always be top news in heroism and skill.

When the mighty river Columbia, darkened and angry with melting snow and unprecedented rains, was early this summer snarling its way for 1,400 miles to the sea, power company crews were fighting not only to protect an essential utility against the relentless flood waters, but had also teamed up with other citizens and relief organizations to give aid to stricken people everywhere.

Tradition of the old West lived again during those somber days as men in all walks of life pressed shoulder to shoulder against a common foe — the river.

It was the greatest flood in more than a half century, with the Columbia and its northern tributaries driving 45,000 people from their homes, lashing over thousands of acres of rich farm land, halting industry, and causing upwards of $300,000,000 in damage.

Fifty-two people died, including thirteen known victims in the city of Vanport, Oregon.

On emergency basis during the peak of the flood were hundreds of Washington Water Power Company employees. Without sleep for days, often missing meals, these men kept service

*For personal note, see "Pages with the Editors."

at a high standard despite heavy odds. They didn't have time to talk about what they were doing — many would have been too modest to tell. They said simply, "It's our job!"

The floods which harassed the entire Northwest were a constant threat to company operations in all parts of the 30,000 square miles of territory served by the firm in Washington and Idaho. Only hard work and the effective efforts of many people saved the situation from developing to a point where power supply might have been curtailed.

As it turned out, hydroelectric stations scarcely fell below rated capacity during the floods. In some cases output was slightly reduced by loss of head.

IT would be a difficult task to link all the names and all the events incident to the fine job done by utility people. One could start at most any point on the system, though, and come up with accounts of special significance.

Take Al Finch, the company's local representative at Cusick, Washington. There the Pend Oreille river was rising to a level 29 feet above its normal high watermark. Lake Pend Oreille, about 100 miles northeast of Spokane, rose as much as 18 inches in twenty-four hours. Farm lands were inundated and an entire valley turned into a huge lake.

For seventy-two hours — without food or sleep — Al was roaring the length and breadth of the stricken area in a small motor boat, rescuing women and children, carrying them to safety on higher ground, shouting words of encouragement to those who must wait for his next trip — quieting the fears of crying mothers with gentleness and his own outward calm.

But being of service to his neighbors both in good times and bad comes natural with Al. Last year a freak tornado swept down the valley, and Al was the first to lend a hand in damage repair.

The Cusick area scene was enacted in dozens of other spots throughout the company service area. Everywhere company employees were at the front, doing all possible for relief.

At Lewiston, Idaho, where the rushing Clearwater river pours into the Snake, big southern tributary of the Columbia, 173,000 second feet of water poured over the spillway during the flood crest. In the forebay of the Washington Water Power's plant on the Clearwater, 60 acres of floating trash collected. On the floor of the river above the plant, 160 acres of silt washed in. Work to remove this waste began immediately, with the plant still producing at rated capacity. Men, naked to the waist, labored like ants around the power station.

AT Long Lake dam on Spokane river, largest of the Washington Water Power's 11 plants, the tailrace raised 15 feet, greatly diminishing head and reducing plant efficiency somewhat. Five miles downstream at Little Falls the same situation developed. Grates became clogged at Nine Mile, cutting output temporarily, but the débris was quickly removed by trouble crews. At the Monroe street plant in Spokane an additional crew of men was required to keep trash racks clean. Post Falls also suffered a loss of head by the swollen waters of Lake Coeur d'Alene in Idaho, which was receiving an inflow of more than 53,000 second feet from all sources.

In Lake Chelan in north central Washington, 10 square miles of débris collected above the company's plant, requiring twenty-four men to feed the trash through the spill gates. At the plant, townspeople and company employees alike labored to protect the plant from flood damage. Backwaters from the Columbia, about a half mile distant from the plant, began threatening the huge switching yard and its vital connecting cables. High waters in Lake Chelan, which normally feed the plant through a 4-mile long underground diversion tunnel, had to be released and were at the same time endangering transmission lines which were moved to safety by busy crews. Railroad creek and the Stehekin river near the head of the lake were wrathfully emptying the Cascade's eastern snow blanket from peaks that rear 9,000 feet in a virgin wilderness.

EVERY man from company crews in the area worked day and night to protect the plant. Tons of loose rock were used to dike the tailrace so that an effective head could be maintained. Here head loss was reduced, and kilowatt capacity was not diminished below rated output.

The spirit of the Washington Water Power crews was catching. Said Roy Furgason, Chelan plant superintendent: "The unselfish assistance given to us by the people of this area helped greatly in preventing very serious trouble. At times there were as many as fifty men on the job, with women standing by with hot coffee and helping to obtain more workers. Many of these people refused any sort of payment for their exhaustive efforts."

Floods caused transmission trouble too. The toughest job faced by engineers and trouble crews was on a 110,000-volt line between Chelan and Wenatchee. Engineers are still talking about the battle necessary to eliminate thrashing guy wires shorting out the line.

Anchored on a rock in the middle of the Columbia is a 3-pole transmission tower. The Columbia roared to over a half mile wide at this point, covering the little island of rock for the first time since 1928 when the line was built. One night flood waters freed a railroad tie being used as a dead-end anchor for one of the guy wires on the structure. In the swift current this tie began to bob, and breaking free of the water would whip the guy cable into a conductor and trip out the line. The guy wire had to be cut before service could be restored!

CUTTING it presented a problem that could not be solved by a speed boat, a landing barge, a tram car, a seaplane, and a helicopter.

Newspaper writers in the area referred to the structure as "a feudal lord tilting in the middle of a giant moat" —winning over all opposition as it

¶ "THERE *are some who would present the Tennessee Valley Authority as evidence of how floods can be controlled, but they forget that in the achievement of its program TVA moved 13,000 families away from its reservoir sites. News stories have told of floods in that area too.*"

swung 10 to 15 feet in the air and flailed sideways 60 to 70 feet. Finally to a crude "sea sled"—it fell.

Glen George, transmission construction supervisor, and Earl Baughn, electrical engineer, flew from Spokane at the outset of the trouble. Their first decision was to locate a power boat from Lake Chelan, transport it to the river, and attempt to reach the line. The 115-horsepower boat was like a chip on the turbulent river, and was soon turned back.

Next, a Navy landing barge was transported from Spokane. It was fastened to the end of a 3,000-foot cable supported by wooden floats every 100 feet. The power winch of a truck was to control it. As a precaution to save time in case this method failed, a stream gauge cable car was taken to one side of the river crossing and mounted on one of the power conductors to enable men to ride out to the structure. The greedy Columbia was rising by the minute. Bridges, used as springboards for the operation, were threatened.

Then nature further conspired and a severe lightning and rainstorm washed out bridges and left trucks and equipment stranded. Like the wreckage of war on a bomb-battered beachhead, equipment had to be abandoned. By this time all four of the tower's guys were snarled and thrashing. Men began packing equipment in on their backs.

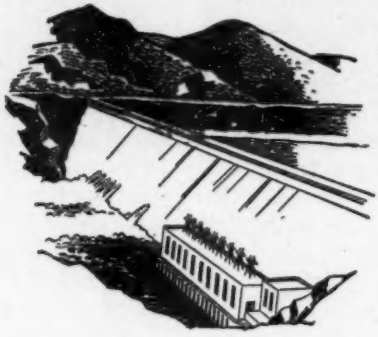
BEHIND Glen George was every company resource, and as "operational commander" he next ordered a seaplane into the attack. With push-type engines howling, it taxied up to the loose guys and Cy Hall, line foreman, leaned from the nose of the plane in an attempt to cut the wires.

After many tries he succeeded in cutting three of the wires. Success seemed within grasp. But the one free guy again became a thing alive and lashed at the plane until the pilot was forced to withdraw. The problem was still to be solved.

Next plan formulated was to attempt snaring the loose guy with a sheep hook on the end of a long rope from a helicopter. A plane came from Yakima, Washington, but after a futile two hours, it too was forced to bow to the river.

By this time the battle had taken on grim aspects. Five days had passed. Engineers' nerves and tempers were raw. Men were half sick from exhaustion. Through the Puget Sound Power & Light Company, and Vern Beckman, Chelan district manager for the Washington Water Power, engineers heard of a "river sled" that had been built by two East Wenatchee men. Silas Hamilton, East Wenatchee marshal, had gotten the idea for his air-propelled boat when he was with the War Department in the Caribbean. He had seen the flat-bottomed boats, powered by airplane propellers and steered by air rudders, find no trouble in débris-filled swamps — could even glide over wet grass. He and a partner, Ed Kaiser, had built a similar model.

POWERED by its 65-horsepower Lycoming motor, and able to do 55 miles an hour in still water, the boat was pressed into service and entered the raging Columbia. For four hours Hamilton and Kaiser fought the current in their 20-foot "sled." The mighty Columbia was laughing.



Columbia River Flood Control

"ARGUMENTS in connection with Columbia river flood control demand close study and much investigation before sound statements can be made. Men who have firsthand knowledge of the destruction caused by the great overflow of the waters of the Columbia river will demand logic from those who would speak lightly of flood control."

Said Hamilton, "We'd get within 2 or 3 feet of the cable, but that wasn't close enough. Then the current would change and the boat would jump 10 feet. The job was getting to the cable and holding the boat there. If we got too close to the flying cable we knew the motor would be ruined. It was nicked a little as it was."

At last, however, the cable was cut. Sheer daring did it. The battle was won, and once more power flowed over the line, connecting 6 miles downstream with the neighbor power company and insuring Wenatchee and the Northwest power pool the badly needed capacity.

Meanwhile the Columbia was roaring to new heights, slugging at dikes, flooding cities and farms — passing The Dalles, Oregon, with a mighty peak of 990,000 second feet, more than a half-million second feet faster than in average years. Only the Pacific ocean conquered it completely, and there its force was spent in muddy-yellow froth.

Interesting in connection with the flood — although the heroism and fortitude of individuals still make the best story, because men's deeds of courage are done without pettiness and sham — were some of the comments drawn from those political aspirants who wished to place flood blame for the lack of the up-stream reservoirs that, so they said, would have held back the waters and lessened the damage.

Even the President of the United States, on a "nonpolitical" tour when the flood was raging, was quoted by one news service as saying, ". . . if sufficient funds had been provided for programs involving the Columbia river

basin, the current floods along the Columbia could have been prevented."

The Bend (Oregon) *Bulletin* labeled that assertion as "pure bunk," stating editorially that "flood control has never been more than an incidental feature of the Columbia programs . . . hydroelectric power has been the thing uppermost in the minds of all who have talked Columbia development, and you cannot hold back much flood water in a reservoir designed to build a head for the generation of electricity."

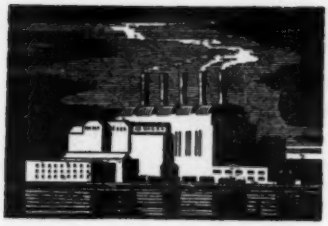
It was the *Bulletin's* belief, and one shared by many who study the Columbia basin from a nonpolitical angle, that it was beyond question to prevent flood damage on the Columbia when given weather such as that of 1894 and 1948, when the snow pack stayed pretty well in place until sudden warm weather and heavy rains teamed up to move it all at once.

There are some who would present the Tennessee Valley Authority as evidence of how floods can be controlled, but they forget that in the achievement of its program TVA moved 13,000 families away from its reservoir sites. News stories have told of floods in that area too. Many who study *both* sides of TVA have hinted perhaps the answer for that also rested in full reservoirs for power generation in competition with private plants, instead of empty ones to catch flood waters! Arguments in connection with Columbia river flood control demand close study and much investigation before sound statements can be made.

Men who have firsthand knowledge of the destruction caused by the great overflow of the waters of the Columbia river will demand logic from those who would speak lightly of flood control.

"Some Americans, who are impressed with the production records of the Soviet and Nazi dictatorships and with our own output during the recent war, believe we should vote our government officials a mandate to undertake a planned economy. These persons should pause to reflect that only in time of war, or of preparation for war, has any advanced industrial state successfully operated a planned economy. And in democratic countries, even in war, numerous organized groups pressed their own interests at the expense, and sometimes at the peril, of their country. Given this behavior even in war and given the complexity of the economy of an industrially advanced country, the substitution in peacetime of the judgment and authority of a central board for the decisions hitherto determined in competitive markets would seem impossible."

—Garfield V. Cox,
The Journal of Business, University of Chicago.



The New York St. Lawrence Public Power Project

Magnitude of the planned development and its status and method of financing. Unlike other large power projects such as TVA and Bonneville, says the author, there should be little competition or even direct conflict with the interests of private electric companies.

By J. LOUIS DONNELLY*

PUBLIC power projects can be built on a large scale through the use of funds made available by private investors and without competing with privately owned electric utility companies. New York state is going to show how this can be done.

The project will be the New York-Ontario power priority plan for the development of the International Rapids section of the St. Lawrence river. This is the largest single potential source of undeveloped water power in North America.

Installed capacity would be 2,200,000 horsepower or 1,881,000 kilowatts. The project is outranked in size only by Grand Coulee on the Columbia river, with an ultimate capacity of 1,974,000 kilowatts. Hoover dam, with installations which reached 1,034,800 kilowatts in 1944, will have an ultimate capacity of 1,322,000 kilowatts.

New York state, says the New York Power Authority, will receive half of the power produced by the St. Lawrence development; that is, 1,100,000 horsepower, or 940,500 kilowatts of installed capacity. Thus, the New York share would be exceeded in size only by the Grand Coulee and Hoover dams in the United States. The new McNary dam when completed will also be larger.

Despite the magnitude of this project, the New York share of its output is exceeded in size as to firm capacity by a number of steam plants built and owned by private electric companies. In its report filed at public hearings of the subcommittee on foreign relations, United States Senate, February 18, 1946, the staff of engineers, Bureau of Power, Federal Power Commission,

*For personal note, see "Pages with the Editors."

said that the firm energy output of the United States portion of the project would be about 5 billion of kilowatt hours equivalent to 570,000 kilowatts if generated 100 per cent of the time.

The largest steam electric generating station in the world is the Hudson avenue plant of Consolidated Edison Company of New York with a capacity of 770,000 kilowatts, or 200,000 kilowatts larger than the New York state share of the St. Lawrence output. The Hell Gate station of Consolidated Edison of New York is rated at 630,000 kilowatts, and the Waterside plant of the same company in early 1949 will have an output of 658,000 kilowatts. The Huntley station of the Buffalo Niagara Electric Corporation as of the beginning of 1948 had an installed capacity of 545,000 kilowatts, and with the addition of 80,000 kilowatts now under way will have a total of 625,000 kilowatts.

SHOULD present schedules be met as to Federal and international agency approval and public financing, work on the project could start during the second half of 1949.

Status of the St. Lawrence power project from the New York state viewpoint may be summarized as follows:

1. Only two legal steps are now required before the New York Power Authority can proceed with necessary financing and the project started. These are approved by the International Joint Commission and the granting of a license by the Federal Power Commission (FPC). Hearings before the FPC were completed in October and final briefs subsequently filed. Hearings before the International Joint Commission are expected to be scheduled shortly.

2. No important obstacles are seen to approval by these two bodies. The FPC has repeatedly advocated the project from a power viewpoint as a part of the combined St. Lawrence seaway-power project. There is no apparent reason for the FPC to reverse this long-standing policy.

3. The project is nonpolitical, having been advocated by both Democratic and Republican presidents and New York state governors.

4. The New York state part of the development would be financed through the sale by investment bankers of as much as $267,000,000 of New York Power Authority bonds which must be retired within forty years. This would be an innovation in power project financing.

5. The New York Power Authority Act requires that no bonds shall be issued until firm contracts for the sale of power shall have been made, sufficient to meet all requirements of the bonds.

6. Unlike other large power projects, such as TVA and Bonneville, there should be little competition or even indirect conflict with the interests of private electric utility companies.

7. The project, to be completed in about seven years with first power available in four or five years, will contribute an important amount of power to be used in New York state.

8. Some private companies in the state could adjust their long-term construction programs should this additional energy become available. Thus, their capital needs would be limited to the catching up on requirements for the interim period.

9. Under the Power Authority Act, the project is designed for the benefit of the people of the state of New York. However, energy would be available to other neighboring states through power interchange agreements.

10. Private companies in the state have not taken any public stand for or against the project. Their attitude is "wait and see." Thus, a lot will depend

on future Power Authority moves. In turn all of these developments will have a bearing on the success of the proposed financing.

THE Power Authority of the State of New York was created by the Power Authority Act originally enacted in 1931 and reënacted with minor amendments in 1939. It is run by five trustees who serve without salary.

Head of the authority is Francis B. Wilby, Major General, United States Army, retired. During World War I General Wilby was with the First Engineers, First Division, AEF. He was a member of the Mississippi River Commission 1935-1938; division engineer of the North Atlantic division at New York, in charge of river and harbor improvements from the Canadian frontier to the Delaware capes, and a member of the Board of Engineers for rivers and harbors, 1938-39, Chief of Staff, First Army, 1939-41; Commanding General of First Corps area (New England) at Boston, 1941; superintendent, United States Military Academy at West Point, 1942-45; retired as Major General in command of Fort Belvoir, Virginia, 1946, chairman, Power Authority of the State of New York since 1946.

Serving with General Wilby are Fred J. Freestone, a trustee since 1931 and vice chairman since 1939; George S. Reed, a leading member of the bar of New York state and trustee since 1934; Gerald V. Cruise, chief engineer and trustee since 1941; Jacob Grumet, who resigned as assistant New York county district attorney, was appointed a trustee January 1, 1948. Ralph Gunn Sucher of New York city has been executive secretary and counsel since 1943.

General Wilby who was with the United States Army Corps of Engineers for forty-one years has been an active proponent of the St. Lawrence project as a combined seaway-power project before various congressional committees.

IN numerous public statements since 1940 and in messages to the legislature, Governor Thomas E. Dewey has recommended this public improvement to serve the interests of the people of the state. In his letter to the Federal Power Commission of July 28th, asking prompt action by that body, Governor Dewey said that the need for power was urgent and vital to the economic development of the region affected by the St. Lawrence as well as of utmost significance to the national defense.

General Wilby calls attention to a letter written by Senator Wagner (D-N. Y.) to Nelson Lee Smith, chairman of the FPC, urging approval of the project, which stated that it has the

¶ "NEW *York state, says the New York Power Authority, will receive half of the power produced by the St. Lawrence development; that is, 1,100,000 horsepower, or 940,500 kilowatts of installed capacity. Thus, the New York share would be exceeded in size only by the Grand Coulee and Hoover dams in the United States. The new McNary dam when completed will also be larger.*"

Senator's "enthusiastic endorsement."

The only opposition that developed at recent Federal Power Commission hearings came from a few groups such as the National St. Lawrence Project Conference, the United Mine Workers, and the National Coal Association. The Aluminum Company of America and its subsidiary, St. Lawrence River Power Company, intervened to determine property rights and power status during the construction period. The two companies stated that they favored construction of the project.

General Wilby has indicated in his testimony before congressional committee hearings that the project will have no unfavorable effect on the private electric utility companies in New York state, but on the contrary it will do the industry a lot of good. There will be no duplication of transmission lines as the power will be distributed to load centers of these companies. The details have yet to be worked out. Also there will be no competition with private electric companies.

"Surveys made by the New York Power Authority," he has stated, "estimate that that part of the St. Lawrence power project located within the state of New York should provide about 63. billion kilowatt hours of energy annually at a cost of roughly three mills per kilowatt hour, allowing for all fixed and operating charges of the project on a self-liquidating basis.

"Our estimates show that power from this development can be generated and transmitted to load centers at delivered costs one-half of those of the most efficient steam plants."

THE Power Authority chairman points out that the combined length of the proposed powerhouse, about 3,500 feet, would make it the longest in the world. The structure, he states, would require about 6,000,000 cubic yards of earth and rock excavation and would contain about 2,000,000 cubic yards of concrete. On each side of the boundary line, 18 turbine-generators will be installed, rated at 61,000 horsepower each at 81-foot head.

Before the Federal Power Commission hearings last month, General Wilby said that any further delay cannot be justified. "We place our case squarely on the ground of the urgent need for new hydroelectric capacity which this development will create," he asserted.

The General said that the need for more power was reflected in the recurring power shortages in upstate New York, Vermont, the Province of Ontario, and in other regions in the vicinity of the proposed development.

"It is reflected," he added, "in the increased use of oil, coal, gas, and other exhaustible natural resources at an alarming rate for the generation of electric power in steam plants in a region which produces no oil, coal, or other natural fuels in quantity."

The various private electric utility companies operating in New York state are not opposing the St. Lawrence power project. These include the Consolidated Edison Company of New York; Niagara Hudson Power Corporation and its subsidiaries, Central New York Power Corporation, Buffalo Niagara Electric Corporation, and New York Power & Light Corporation; two subsidiaries of General Public Utilities Corporation, New York State Electric & Gas Corporation

Largest Steam Electric Generating Station in the World

"THE largest steam electric generating station in the world is the Hudson avenue plant of Consolidated Edison Company of New York with a capacity of 770,000 kilowatts, or 200,000 kilowatts larger than the New York state share of the St. Lawrence output. The Hell Gate station of Consolidated Edison of New York is rated at 630,000 kilowatts, and the Waterside plant of the same company in early 1949 will have an output of 658,000 kilowatts."

and Rochester Gas & Electric Corporation; and Eastern New York Power Corporation and Hudson River Power Corporation, subsidiaries of International Hydro-Electric Company. The largest municipally owned electric plant in the state is located at Jamestown, New York.

These companies are not taking any public stand on the matter. They would like to get the power which would be available from the St. Lawrence project. They would be willing to take it on a cost basis; that is, no profit over and above what they have to pay for the energy and their own costs involved.

Private company managements are waiting on the answers to a number of questions which have yet to be answered by the Power Authority. These include the following: Will the authority seek to modify the present law and in what manner? Will the authority seek to firm up its power through use of steam? How will the authority transmit power to the private companies?

THE New York Power Authority was created in 1931 by the state legislature when Franklin D. Roosevelt was governor and Herbert C. Hoover, President. This act declared the part of the St. Lawrence river within the state boundaries to be a natural resource of the state for use and development of commerce and navigation in the interest of the people of the state and the nation, and for the creation and development of hydroelectric power in the interest of the people of

New York. Both Roosevelt and his successor as governor, Herbert H. Lehman, supported the project as contained in legislation before Congress but never enacted.

Governor Dewey also supported the national legislation. However, this year he decided to remove the project from the national legislative picture where it had been stalled for years. The governor directed the Power Authority to move on its own, along with the Hydro-Electric Power Commission of Ontario, and divorce the power program from the seaway plans.

The New York and Ontario groups applied to the International Joint Commission for approval of the power development under the Root-Bryce Boundary Waters Treaty of 1909. The pact authorizes the commission to approve projects in boundary waters of the United States and Canada. In addition the Power Authority in July filed an application with the Federal Power Commission for a standard license on that part of the project located within the state of New York.

Thus, the New York governor, who was then Republican candidate for President, has injected a new pattern into the national power picture. Ever since the advent of the New Deal, the private electric utility industry has strongly objected to the use of government funds to finance power projects where the resultant energy is sold in direct competition with that of private companies.

THE New York Power Authority Act authorizes and directs the authority in the development of hydro-electric power from the St. Lawrence project that it "shall be considered primarily as for the benefit of the people as a whole and particularly the domestic and rural consumers to whom the power can economically be made available, and accordingly that sale to and use by industry shall be a secondary purpose to be utilized principally to secure a sufficiently high load factor and revenue returns to permit domestic and rural use at the lowest possible rates and in such manner as to encourage increased domestic and rural use of electricity.

"In furtherance of this policy and to secure a wider distribution of such power and use of the greatest value to the general public of the state, the authority shall, in addition to other methods which it may find advantageous, make provisions so that municipalities and other political subdivisions of the state now or hereafter authorized by law to engage in the distribution of electrical current may secure a reasonable share of the power generated at the project, and shall sell the same or cause the same to be sold to such municipalities and political subdivisions at prices representing cost of generation, plus capital and operating charges, plus a fair cost of transmission, all as determined by the trustees, and subject to conditions which shall assure the resale of such power to domestic and rural consumers at the lowest possible price.

"To that end, the authority may provide in any contract or contracts which it may make for the sale, transmission, and distribution of the power, that the purchaser, transmitter, or distributor shall construct, maintain, and operate, on such terms as the authority may deem proper, such connecting lines as may be necessary for transmission of

the power from main transmission lines to such municipalities or political subdivisions."

THE authority is directed to negotiate a contract or contracts for the sale, transmission, and distribution of the power generated under the project, which by the terms will provide for (1) payment of all operating and maintenance expenses of the project, and (2) interest and amortization and reserve charges sufficient within fifty years of the date of issuance to retire the bonds of the Power Authority issued for the project.

The act provides that "no bonds or other obligations of the authority shall be issued until firm contracts for the sale of power shall have been made by it sufficient to insure payment of all operating and maintenance expenses of the project, and interest on, and amortization and reserve charges sufficient to retire, the bonds of the authority issued for the project in not more than fifty years from the date of issue thereof."

All properties, covered by the act, shall be exempt from New York taxes and the securities issued by the authority shall be free from taxation within the state.

Cost of the entire project, as now constituted, has been officially estimated at $463,374,000 based on July, 1948, prices. New York cost has been estimated at between $263,450,000 to $267,000,000, including all facilities and interest to be paid during the construction period.

Wall Street is preparing for an issue of more than $267,000,000 of New York Power Authority bonds to finance the project. In view of the large amount of money to be raised, there would be no competitive bidding. Instead, there would be one large selling syndicate with virtually all leading banking firms involved. It would be the first large undertaking of its kind and a successful sale is being forecast. The name "New York" rates high with investors and the new issue should do well even though the loan would not be an obligation of the state of New York but of its agency, the New York Power Authority.

Archibald Galloway, former deputy New York state controller, testified at the FPC hearings that the project would be financed through 40-year revenue bonds bearing 3 per cent interest. He submitted a letter from the New York city banking firm of Lehman Brothers assuring that the bonds could be readily marketed.

This letter stated: "We have formed

¶ "THE *New York Power Authority was created in 1931 by the state legislature when Franklin D. Roosevelt was governor and Herbert C. Hoover, President. This act declared the part of the St. Lawrence river within the state boundaries to be a natural resource of the state for use and development of commerce and navigation in the interest of the people of the state and the nation, and for the creation and development of hydroelectric power in the interest of the people of New York.*"

a nation-wide group of more than one hundred investment bankers experienced in revenue bond financing, which group is prepared to consider the proposed financing whenever it is ready for the market. We believe the development can produce adequate revenues to meet interest and to amortize the total cost within forty years, at the same time making power available at rates sufficiently low to assure a ready market and have a very beneficial influence upon growth of the state."

PUBLIC offering would be based on estimates of engineers and the authority as no revenue would be obtainable at least for four years. The Ontario Commission would probably have to finance a part of its cost although the provincial body is already well established and has funds available for a large part of its capital needs.

New York is the first state ever to offer to pay for a project of this type. This would have also been done had Congress approved the combined seaway-power project. As now planned, New York will be the first state to use investor funds to construct a large-scale hydroelectric power installation.

Similar developments have been the two Texas hydro projects on the lower Colorado and Brazos rivers and the Santee-Cooper hydro project in South Carolina. These three developments were financed with United States government funds through the Works Progress Administration and the Reconstruction Finance Corporation.

The two Texas projects have been refinanced with private capital to replace government funds. The obligations are rated highly by investors. The St. Lawrence issue would rate much higher, according to investment bankers, due to the high credit standing of New York and its agencies.

While Santee-Cooper is still a government-financed project, it is considered possible that, once market conditions permit, private funds may be used. Some bankers even envision the use of private funds to replace government money in such projects as Grand Coulee.

The lower Colorado river project was built for power, conservation, and flood control at an estimated cost of $50,000,000 and with an estimated ultimate capacity of 127,250 kilowatts. At present four dams have been completed with 116,000 kilowatts installed.

THE Brazos river project was built for power, flood control, and irrigation at an estimated cost of $50,000,000 and an ultimate capacity of 87,000. Only one of twelve scheduled dams has been built.

Purpose of the Santee-Cooper project is power and navigation. Cost is $59,115,000 and ultimate capacity 163,215 kilowatts. The dam was built in 1937-1941 and operations started in March, 1943, with 132,615 kilowatts installed.

At the present time Santee-Cooper, owned and operated by the South Carolina Public Service Authority, is the largest state public power project. The act of 1934 of the general assembly of the state of South Carolina, which created the South Carolina Public Service Authority, was modeled in many respects upon the Power Authority Act of 1931 of the State of New York.

The Power Authority of New York is seeking a license to build a concrete

Preparations for Issuance of Bonds

"WALL Street is preparing for an issue of more than $267,000,000 of New York Power Authority bonds to finance the [St. Lawrence] project. In view of the large amount of money to be raised, there would be no competitive bidding. Instead, there would be one large selling syndicate with virtually all leading banking firms involved. It would be the first large undertaking of its kind and a successful sale is being forecast."

gravity dam, to be known as the Long Sault dam, consisting of two abutment sections and a gate-controlled spillway section from the United States shore of the St. Lawrence river near Massena to the upstream end of Barnhart island.

The United States part of the project would include half of the powerhouse on Barnhart island with the other half being developed by the Hydro-Electric Power Commission.

The International Rapids section of the St. Lawrence is located within the state of New York and the Province of Ontario. Throughout its length of approximately forty-six miles from Ogdensburg, New York, downstream to Massena, New York, it is traversed by the international boundary which follows generally the thread of the stream and forms a part of the boundary line between the state and the province.

THE St. Lawrence has an observed average mean monthly outflow of 237,000 cubic feet per second, with an aggregate fall of 92 feet, through the International Rapids section. The total drainage area at Massena is approximately 303,000 square miles, including 95,000 square miles of water surface.

The river is stated to be potentially capable of development at a site at the foot of Barnhart island, near Massena, New York, and Cornwall, Ontario, to provide 2,200,000 horsepower with an average annual output of 12.6 billion kilowatt hours of energy.

The St. Lawrence is unique in that the flows are remarkably constant due to the natural reservoirs provided by the Great Lakes, having a ratio of maximum to minimum flow of only 2.2 as compared with the normal ratio of 40 to 50 for most rivers of a comparable size. "This makes possible,"

says the authority, "the generation of a fairly uniform amount of high load factor energy year after year and does not necessitate the provision of steam-electric generating facilities to firm up the project output." The river is subject to neither floods nor low water.

The Power Authority states that the best utilization of St. Lawrence power would be as 60, 80, and 100 per cent time block load power with local steam and low-load factor storage hydro power serving the remaining portions of the load.

Long Sault dam, extending from the head of Barnhart island to the New York shore, will divert the flow of the river through the tumultuous Long Sault Rapids to the Barnhart island powerhouse, raising the pool about 70 feet and creating a gross head of about 85 feet. It is designed as a curved concrete structure, over 2,900 feet long, 150 feet high above the foundations, containing nearly 600,000 cubic yards of concrete. The dam will have forty 50-foot sluices capable of discharging the maximum flow of the St. Lawrence.

THE New York-Ontario application to the International Joint Commission recites that "all main features of the project, including the Long Sault dam and the Barnhart island powerhouse, shall be so planned and built as to be adaptable to the further improvement of the International Rapids section of the St. Lawrence river for navigation purposes as recommended in the joint report of January 3, 1941, of the United States St. Lawrence Advisory Committee and the Canadian Temporary Great Lakes-St. Lawrence Basin Committee."

The application states that plans for the proposed structures have already been completed by the Corps of Engineers, United States Army, with the coöperation of the Power Authority of the State of New York, the Hydro-Electric Power Commission of Ontario, and other public agencies in both countries.

Costs estimates of the project have been under review by the Corps of Engineers, the Department of Transport of Canada, the Power Authority, and the Hydro-Electric Power Commission, and detailed revised estimates were submitted at public hearings before the Federal Power Commission.

While prices are higher currently than in 1947, it is pointed out that during the 7-year construction period the cost cycle may change and turn downward to some extent so that the average cost over the long period could be somewhat less than current conditions would indicate.

Under the plan proposed, each of the two agencies will construct the works on its own side of the boundary with equalization of the total cost of the project by allocation of certain channel excavation works in the river to one or the other of the agencies.

THE Federal Power Commission has repeatedly favored the St. Lawrence project as a part of a joint seaway-power development pending before Congress.

In its April, 1944, report to a Senate subcommittee, the commission stated that it was familiar with the proposed power development. It was pointed out that the FPC participated in the interdepartment board on the Great Lakes-St. Lawrence project, which prepared

an exhaustive economic survey of the entire undertaking. The report to the Senate committee said: "On the basis of its studies, the commission is convinced that the St. Lawrence power project is of outstanding importance in connection with the region's postwar development." Adoption of the legislation was recommended with the FPC saying that it was convinced it "would be in the public interest, make an important contribution to the country's postwar stability and strength."

The staff of engineers, Bureau of Power, Federal Power Commission, in a report filed at public hearings of a Senate subcommittee on Foreign Relations in February, 1946, said:

"Unless low-cost power is provided in the market area, industry will be drawn away to other parts of the country. It should be noted that to date the growth of load in the market area has not kept up with the rest of the country. Hence, low-cost power developed elsewhere in the country will draw industry away unless similar power is provided. The St. Lawrence project is the only available source of such low-cost power in the market area and its output can compete on an even basis with cheap-power sources in the Northwest and elsewhere."

THE 1947 annual report of the FPC points out that a St. Lawrence survey, prepared by it, was used as a basis for commission testimony before the subcommittee of the Senate Foreign Relations Committee in May, 1947. The report says that the survey "comments on the need for an economic justification of the electric power equipment proposed for development."

One of the experts of the Federal Power Commission, Robert de Luccia, chief of the commission's Bureau of Power, stated at the hearings that the development was economically feasible. He suggested that load centers might include localities near the project and Utica, Schenectady, Poughkeepsie, Binghamton, and New York city, all in New York state, and Springfield, Massachusetts, and Burlington, Vermont. The authority, however, has not arrived at final stand as to load centers.

Completion of the project would allow resumption of operations at the large government-built aluminum plant at Massena, which is located near the site of the proposed new power supply. It operated from June, 1942, through January, 1944, depending upon steam power transmitted long distances and resulting in high energy costs.

The low-cost power could attract electrochemical companies to the area as these heavy consumers of energy are constantly expanding and would find this area attractive in many respects. An additional project for the New

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¶ "THE *authority is directed to negotiate a contract or contracts for the sale, transmission, and distribution of the power generated under the project, which by the terms will provide for (1) payment of all operating and maintenance expenses of the project, and (2) interest and amortization and reserve charges sufficient within fifty years of the date of issuance to retire the bonds of the Power Authority . . .*"

York Power Authority is the further development of the Niagara river. Studies of this project have been made by Army and FPC engineers.

The authority in its eighth annual report for the year 1938 recommended a new full-head development at Niagara Falls which it stated would take probably as long to construct as would the St. Lawrence development, even after all the designs, plans, and negotiations were completed, which, in the case of the St. Lawrence, it says, have taken years. This project, however, would require action by the United States Senate to amend the 1909 diversion treaty.

This year, in commenting on the Niagara river status, the authority pointed out that the Schoellkopf plant, owned by a Niagara Hudson Power subsidiary, utilizes only about 215 feet of the potential 312-foot head around the falls and the lower rapids. It was asserted that a modern full-head development, such as was recommended in 1939, would make 587,000 kilowatts of additional hydroelectric power capacity available without distributing the use of the existing Schoellkopf plant.

DIFFERENCES between the private utility companies of the state and the Power Authority have developed in the past. One of these involved the Niagara river. In 1941 the authority obtained court permission to file a brief as *amicus curiæ* in an action brought by the New York Water Power and Control Commission against the Niagara Falls Power Company. The question at issue was whether the state or the private company should develop the water-power resources of the Niagara river.

During World War II the Power Authority unsuccessfully urged the construction of a public transmission line from New York city to Massena. This project was successfully opposed by Consolidated Edison Company of New York and Niagara Hudson Power Corporation. However, a line was built by the Federal government from Massena to Taylorville, a distance of 76 miles. In June, 1946, the authority certified to the War Assets Administration that the Massena-Taylorville transmission line is "needful for and adaptable to the requirements" of the St. Lawrence power project within the meaning of the War Surplus Property Act of 1944.

The Power Authority, under the chairmanship of James C. Bonbright, in its fourteenth annual report for the year 1944, said:

"Adoption of a plan to develop the St. Lawrence river for power alone, excluding possible navigation improvements and benefits, would present an exceptional innovation, reversing the whole trend of river development in the United States over the past quarter of a century." It is further pointed out that of a list of thirty major river projects, including Federal and state developments, "that, without exception, these projects combine power with navigation, flood control, or other beneficial purposes wherever such multiple-purpose improvements are feasible."

Exchange Calls And Gossip

Emergency Rate Increases Attacked

GOVERNOR Ernest W. Gibson of Vermont is definitely opposed to the granting of telephone and other utility rate increases without a full hearing before the state public service commission. The immediate issue is a rate increase sought by the New England Telephone & Telegraph Company.

On October 21st, the governor intimated in a public statement that he might call a special session of the state legislature to prohibit an increase in telephone rates until the public service commission had studied the situation and had given its approval. Since that date he has changed his mind about calling a special session, but nevertheless plans to urge such legislation in the 1949 session of the legislature.

Governor Gibson stated that he would ask the 1949 legislature to take prompt steps to pass legislation requiring the public service commission to "properly regulate public utilities and to prevent rate increases being imposed until final authority is granted by the proper regulatory bodies."

The governor stated further that the action of the New England Company in seeking a third rate increase, while the rate fixed by the public service commission on the telephone company's bid for a second rate advance was before the Vermont Supreme Court, constituted "another glaring example of the need for increased and adequate power for the public service commission, all for the protection of every Vermonter."

SINCE the calling of a special session of the legislature to stop the rate increase, which was scheduled for November 16th, has been abandoned, the governor has decided on two immediate steps: (1) direct negotiation with telephone company officials with a view to reaching an agreement on halting the new rate advance; and (2) if such negotiations fail, the state would seek an injunction to prohibit the telephone company from instituting the proposed rate until the case now pending in the Vermont Supreme Court is decided.

Rate boosts, under present Vermont law, can be put into effect under bond before hearings are held. This was the procedure followed in two previous rate increase petitions filed by the New England Telephone & Telegraph Company. Governor Gibson would repeal the bonding provision of the law and would forbid any rate advance until a hearing and a decision is made by the public service commission.

Press Requests More Radiotelephones

NEWSPAPERS are seeking to extend the use of 2-way radio in their news gathering operations. They have urged the Federal Communications Commission to permit the widest possible use of such equipment for speeding transmission of news and photographs.

Chief obstacle is the limited number of radio frequencies available to satisfy the steadily increasing demand. The FCC is giving attention to permanent allocation of certain frequencies including those for utility companies, police and fire departments, forest fire protection, taxicabs, and shipping groups.

The commission tentatively has put

newspapers in the class of general industrial users. The publishing groups contend that this would reduce news use of the system to sending dispatch orders to reporters. It would not permit reporters or photographers to send their stories or pictures back on the system.

At present, five newspapers are using their own 2-way radio units on an experimental basis. Five other papers have been licensed to operate such radios, and the American Newspaper Publishers Association says 48 additional papers have indicated a desire to establish similar facilities.

The National Committee for Utilities Radio—representing electric, gas, water, and steam utility companies—claims that the present FCC proposals for allocations for their services do not completely meet requirements.

Radio "Give-aways" Defended

Most of the leading radio broadcasting companies are actively opposing the adoption of rules proposed recently by the Federal Communications Commission to regulate so-called "give-away" programs and radio contests.

In general, the companies challenge the authority of the commission to promulgate such rules and they claim they would constitute a restraint upon radio program material and an impairment of freedom of speech.

At a recent hearing before FCC, the attorney for the American Broadcasting Company, Bruce Bromley, declared that in the last analysis the question of whether "a particular type of radio program shall continue to be broadcast in this country is for the listening public to decide, as it has consistently decided in the past."

The American Broadcasting Company contends that the real substance of the FCC's proposed rules is not in the definitions of lotteries and their component elements, but the action which the commission proposes to take on the basis of the definitions. By indicating that it will refuse to grant or renew licenses to broadcasters who carry programs that might fall under the proposed rules, Mr. Bromley said, the commission might well be taking punitive action in advance against many currently popular radio programs.

"Stop the Music," an outstanding give-away show produced by the American Broadcasting Company, has been estimated to be worth about $2,000,000 a year to the company. An audience of 14,000,000 is claimed.

The National Association of Broadcasters likewise opposed the rules. Don Petty, general counsel, said, "If the commission makes these proposed rules final, the refusal of an application or the revocation of a license pursuant thereto will in effect constitute the infliction of punishment without a judicial trial."

The proposed rules would outlaw most of the current give-aways on the theory that they are lotteries and hence are illegal. However, one of the rules was approved by many of the witnesses. This one would make any prize contest illegal in which a winner would be required to have in his possession any product sold by the sponsor.

REA and Rural Telephones

Despite his loss of the election, telephone men, both Bell and independent, were somewhat puzzled over Governor Dewey's reference to the need for more rural telephones in two of his preëlection campaign speeches. In his speech at St. Paul, on October 16th, the Republican presidential candidate said, among other things:

> The last farm census shows that two-thirds of the farm families of this country still do not have telephones. More than one-third are still without electricity.

Several days later in Chicago, Governor Dewey repeated somewhat similar sentiments. What the telephone men are wondering about is whether the new Truman administration has any ideas about putting REA in the business of making loans for rural telephones—thereby reviving the old Hill Bill.

Financial News and Comment

By OWEN ELY

Credit Expansion Continues Despite Federal Reserve "Brakes"

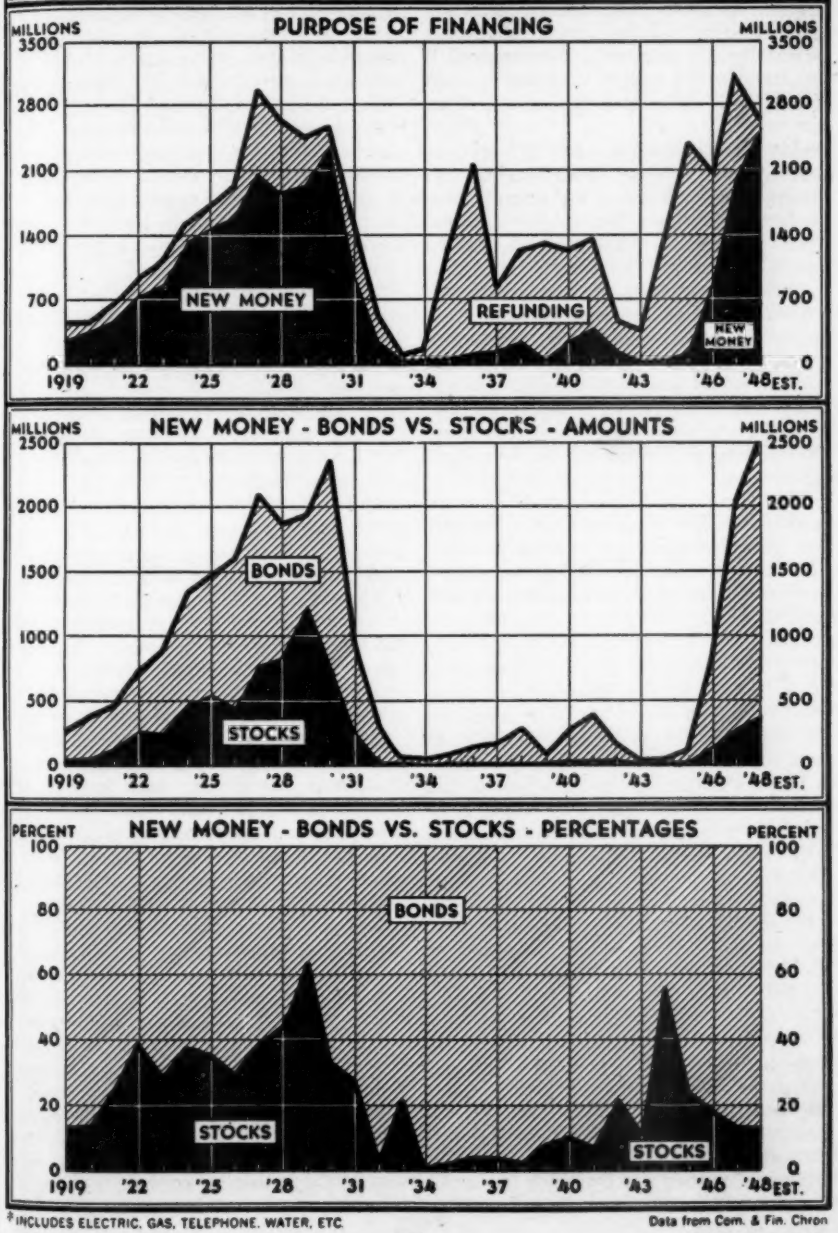
DESPITE efforts of the Federal Reserve Board and other banking authorities to put the brakes on inflation, bank loans showed a bigger increase in September than in the previous two months combined. Some of this $1.1 billion in bank credit is considered seasonal, because of funds needed to move crops and build up Christmas inventories. But borrowing due to instalment sales and other forms of consumer credit have also reached new peaks. (Reimposition of Federal controls was effective only in the latter ten days of the month, however.) Bank debt now exceeds $47 billion, and consumer credit (up about $300,000,000 in September) approaches $15 billion. Instalment debt on automobiles gained $73,000,000 in September, reflecting some slowing down from the recent trend, and premium prices on "used" new cars are now declining.

With the assets of life insurance companies now slightly exceeding the amount of bank loans, the debate as to which agency — insurance, commercial banking, or government—should play the major rôle in checking inflation still continues. Thomas I. Parkinson, president of the Equitable Life Assurance Society, has in the past three months attacked Federal Reserve policy in published letters to policyholders, talks at association meetings, etc. Possibly nettled by these attacks, three of the seven Reserve Board members, including Chairman McCabe and former Chairman Eccles, have asserted in recent speeches that it is unfair for the banks alone to have the task of halting the relending of funds derived from the sale of government bonds.

BUT this tendency for the "pot to call the kettle black" does not get us anywhere. What is needed is a thorough understanding by the administration and Congress of the mechanism by which credit inflation operates, and correct appraisal of present trends and future possibilities. While the insurance companies may not be wholly blameless in their recent switch from governments to more profitable corporate investments, Mr. Parkinson has performed a great public service by describing credit inflation in terms which the layman can understand. The following is principally summarized from his recent talk before the chamber of commerce of the state of New York, published in the chamber's October bulletin.

As far back as 1935, Mr. Parkinson pointed out that huge government spending must eventually result in confiscatory taxation, or repudiation, or both. He maintains that we are now getting such confiscatory taxes through the high cost of living, increased business overhead and working capital requirements, and heavy construction costs. "Repudiation" is also occurring through the decreased purchasing power of government bonds,

HISTORICAL TREND OF UTILITY FINANCING*



*INCLUDES ELECTRIC, GAS, TELEPHONE, WATER, ETC.

Data from Com. & Fin. Chron

life insurance policies, social security benefits, and other fixed obligations. The popular name for this combined taxation and repudiation is inflation. Inflation is primarily due to rapid and uncontrolled increase in the supply of money, bank credit, and debt, and this is still continuing.

Mr. Parkinson quoted Mr. Eccles as stating in a congressional hearing that under present conditions, organization and procedures, the Federal Reserve system "is the greatest inflation engine that could be contrived by man." Such inflation occurs through conversion of government debt into bank credit or money, a process permitted by the Federal Reserve machinery, which was designed at a time when government debt was of small and manageable proportions. Before the war the money supply was about $60 billion, at the end of the war $150 billion, and it is now nearly $170 billion ($2 billion coins, $26 billion bank notes, and $140 billion bank deposits). Most of the gain since the end of the war has been in bank credit, which has increased despite the fact that the government debt was reduced.

DURING the war an effort was made to check the inflation of bank credit by forbidding banks to subscribe to long-term Victory Loan bonds, or to buy them until such bonds were within a 10-year maturity, but the effect of this measure was nullified by increased sales of short-term paper to the banks, as well as by their purchase of eligible long governments at a premium. Thus in three postwar years, despite an ending of government deficits and a reduction of total government debt by $28 billion and of marketable debt (which banks can hold) by $40 billion, money supply is up nearly $20 billion. How could this happen?

One way in which the money supply has increased is through the continued purchase of gold—nearly $4 billion since the end of the war. This increases the reserves of the commercial banks, and permits increasing bank credit some $16 billion. Another way by which the banks increase their reserves is to sell government bonds to the Federal Reserve. They can always do this, at any time and in virtually any amount, because the Federal Reserve system is now elastic enough (if necessary) to absorb perhaps the whole government debt; and also because the twelve Federal Reserve banks have been ordered by the board to "peg" the purchase price of long-term governments. The "peg" was lowered slightly a year ago, with a resulting increase in interest rates, and there has been recent talk of dropping it to par. However, the question of the exact level of the price "peg" is far less important than the confidence of the commercial banks that they can continue to sell governments to the Reserve, thereby increasing the supply of bank credit about four times. This has encouraged the banks to enter the field of long-term lending—usually reserved for investment bankers (through sale of corporation bonds to the public) and more recently enjoyed by the insurance companies.

WHILE these loans do not run over eight or ten years, nevertheless they may account for a considerable part of the increase in bank credit. Thus the government itself, unintentionally but effectively, has been encouraging an increase in both short- and long-term bank credit, by its fixed policies of (1) buying gold from U.S. mines or foreign countries and (2) buying back government bonds from the banks and insurance companies. Instead of sharply changing the machinery for creating credit, the government has tried by "moral suasion" or slight adjustments in bank reserve requirements to check lending by banks and insurance companies.

"The banks," said Mr. Parkinson, "have been making farm loans for long terms which they ought not to make, and which, I submit, they would not make if they were not depending on the continuance of Federal Reserve support of the bond market and other unsound fiscal and monetary policies which have been enforced and are enforced in this country. I think that we bankers and we life insurance men ought not to go on de-

pending on unsound public policies to pull us through the problems of the future. . . . We have washed out the effect of government reduction of its debt by the creation of bank deposits through the buying of gold and through new loans, new purchases of assets made possible by this unsound policy of the Federal Reserve Board continuing to take government bonds into the banking system at a fixed price."

The insurance companies are also in the picture. In the last two weeks of September, according to Mr. Parkinson, the Federal Reserve bought $2 billion government bonds of a type that the banks are not permitted to hold which indicates that they were sold by the life insurance companies. This money was (temporarily at least) deposited in the banks, thus increasing bank reserves so that the banks could loan out some $8-$10 billion. At about the same time, the Reserve Board raised the required reserves of the banks against all loans, so that the net result was a stalemate. In Mr. Parkinson's view, the banks might well be grateful rather than critical of these life insurance sales, since they provided them with "all the deposits they needed to meet the increased reserves that the Federal Reserve foolishly imposed on them."

MR. PARKINSON defended the rights of the big insurance companies to sell governments at any time—they cannot under New York law agree among themselves *not* to sell—but he held that they have no right to a guaranteed buyer. "We do not need and we do not want government support of the bond market under any such circumstances. Market support increases the money supply and that costs our policyholders more in the long run through the depreciation of the dollar than any benefit that it can possibly confer upon us in maintaining a market price. . . . Our securities are all carried on what is technically known as an amortized basis, and they will continue to be carried at or about par quite irrespective of the price that they enjoy on the market. That is what kept us stable during the years of depression. . . . We don't need support unless we want to take the proceeds and invest them in a higher coupon investment, and that I submit is not support. That is indulgence. . . . The bank examiners and FDIC can readily do what little is necessary to preserve the banks from any similar detriment due to a drop in the prices of government bonds."

Mr. Parkinson feels that there is little likelihood that long-term governments would drop to 70 or 75 if the "pegs" were removed. The support program need not extend to the $55 billion E-F-G bonds, $55 billion of governments held by government agencies and the Reserve banks, $50 billion maturing within five years (which he considers "money good"), or the $25 billion held by insurance companies and savings banks. Thus the only vulnerable part of the debt in his opinion is the $60 billion long-terms held by individuals, corporations, and commercial banks.

HIS proposed remedy is simply "to stop this method of buying gold with that foolish addition to our money supply. We have got to stop this monetization of government debt, whether through sales by life insurance companies or banks, with its resulting increases in our money supply. . . . We have invented, set up, and have in full operation, the greatest printing press that has ever been developed in human civilization . . . camouflaged under the respectability of the cloak of the Federal Reserve system. . . . We still need . . . some kind of a public responsible agency, like the Aldrich Monetary Commission of 1911, to study this whole question. . . . An inflation is not always followed by a depression. An inflation may be followed by a second inflation and that may be followed by a third inflation, and that by a fourth, etc., until you are led to the brink of financial ruin . . . bringing absolute regimentation and complete domination by the Federal government."

Mr. Parkinson has done a fine job in clarifying our financial picture and exposing its grave weaknesses. The banking and monetary setup has become much

too complicated for the average businessman and politician to understand easily, and neither the administration nor the bankers have been doing a very effective educational job, for various reasons. When the Federal Reserve system was created just before World War I, we thought that it would level out the business cycle by stabilizing bank credit. The Reserve succeeded in eliminating seasonal monetary difficulties and has aided in other ways, but the long-term control of bank credit has proved beyond its powers either because it has failed to use them, or because it has been dominated by the Treasury Department, in turn dominated by the President and Congress. This was particularly true in the 1930's when the New Deal deficit spending and monetary legislation laid the groundwork for present inflationary trends. Even without the latter development, the growth of our institutions and the change in the system of private finance have been so great since 1912 that our whole system of credit controls needs overhauling. Most great wars in the past have been accompanied or followed by inflation and great commercial activity, followed by severe retrenchment and depression. Usually the major readjustment comes about a decade after the end of the conflict. It is the duty of the incoming administration to do all in its power to prevent a similar national catastrophe some time around 1955.

OBSERVERS of inflation have found some encouragement recently in the fact that farm prices are in a downward trend, though still supported by "parity" legislation. However, this decline is thus far largely offset by a rise in nonfarm prices. It is too early to tell whether we can avoid a fourth round of wage increases in 1949, which would continue the inflationary trend so far as commodity prices are concerned. But it must be remembered that inflation has several strings to its bow, and that the inflation of 1929 occurred long after commodity prices had started on a downward trend. The major problem is to check the rapid creation of debt, both public and private, and to plan ahead for the proper handling of debt maturities so that the readjustments will not upset the banking system and the extension of credit for normal future needs. This problem is paramount, and unless it is solved our economics could go into another tailspin if the banking system proves inadequate (as it did in 1929-33) to handle an abnormal volume of forced debt liquidation.

The National City Bank, in its November letter just released, warns that the decline in farm prices does not end the danger of inflation. The answer to this question, according to the bank, will not be provided by developments in specific markets, but by the course of international affairs, by fiscal and monetary policies, and "not the least by the decisions which people and business make as between spending and saving." The bank pointed out that the Federal Reserve in October bought $1.4 billion of long-term Treasury bonds, and has acquired a total of $9.5 billion since fixed peg prices were established a year ago.

Directors of the Chamber of Commerce of the United States on October 31st suggested that the next Congress create a national monetary commission to make a thorough review of the currency and credit system. With a fifth of the government's huge debt falling due every year, artificially controlled interest rates and a monetary unit of fluctuating purchasing power, a fundamental study of money and banking problems is obviously desirable, the statement added. Representative Buffet last year introduced a bill in the House to set up such a commission and Chairman Tobey of the Senate Banking Committee has endorsed the proposal. The utility industry should lend its support to this move.

August Electric Earnings Reflect Improved Capacity

As indicated in the accompanying table on page 747 the FPC earnings figures for all electric utilities in August continued moderately favorable. Kilowatt-hour sales gained 9.3 per cent and

CURRENT UTILITY STATISTICS AND RATIOS *(Footnotes, page 748)*

	Unit	Amount — Latest Month	Amount — Latest 12 Mos.	% Increase over Prev. Period — Latest Month	% Increase over Prev. Period — Latest 12 Mos.
Operating Statistics (Sept.)					
Output KWH—Total	Bill. KWH	23.6	276	10%	11%
Hydro generated	"	6.0		8	
Fuel generated	"	17.6		11	
Capacity	Mill. KW	54.7		6	
Customers, no.	Mill.	39.9*		6	
Fuel Use: Coal	Mill. tons	8.6		9	
Gas	Mill. MCF	50.6		28	
Oil	Mill. bbls.	2.9		D26	
Coal Stocks	Mill. tons	25.2		37	
% Max. KWH Cap.[1] exceeds output	—	67%			
Sales, Revenues, and Rates (Aug.)					
KWH Sales—Resid.	Bill. KWH	2.9	38	13%	14%
Com.	"	2.9	32	14	14
Indus.	"	9.2	104	10	10
Total, incl. misc.	"	21.1	245	9	10
Revenues—Resid.	Mill. $	94	1,172	11	11
Com.	"	80	912	14	13
Indus.	"	103	1,142	15	13
Total, incl. misc. sales	"	341	3,933	14	13
Revenues and Income (Aug.)					
Elec. Rev., incl. misc.	Mill. $	$345	$4,000	14%	13%
Misc. Income	"	3	115	D36	D9
Total Income	"	$348	$4,115	13	12
Expenditures (Aug.)					
Fuel	Mill. $	$ 68	$ 726	28%	39%
Labor	"	69	782	13	13
Misc. Exp.	"	61	707	13	19
Depreciation	"	30	348	10	7
Taxes	"	55	672	10	4
Interest	"	18	202	15	7
Amortization, etc.	"	2	36	D41	D32
Earnings and Dividends (Aug.)					
Net Income	Mill. $	$ 44	$ 641	5%	D1%
Pfd. Div. (est.)	"	8	97	D3	D2
Bal. for Com. (est.)	"	36	$ 544	6	
Com. Div. (est.)	"	30	388		4
Bal. to Surplus (est.)	"	6	156	50	D6
Utility Financing[2] (Sept.)					
Bonds	Mill. $	$220	$1,730[4]	4%	D2%[4]
Stocks	"	38	290	D3	D20
Total	"	$258	$2,020	3	D5
Life Insur. Co. Investments (Oct.)[3]					
Utility Bonds	Mill. $		$1,097		D15%
Utility Stocks	"		32		D30
Total	"		$1,129		D15
% of All Invest.	"		19.9%		D21

revenues 13.6 per cent. Fuel costs were only 27.5 per cent over last year, wage costs 13.2 per cent, and total revenue deductions 15.1 per cent. While interest charges were up 14.5 per cent, the decline in amortization charges resulted in a gain of only 3.8 per cent in all deductions. Net income for the month increased 4.6 per cent and for the twelve months ending August was off only .5 per cent. With drought effects perhaps more in evidence in September, however, it seems a little unlikely that that month will duplicate the August showing.

The improved August showing with respect to fuel may partially reflect the important gains in efficiency due to the installation of new equipment. It is customary for such equipment to produce some 10-20 per cent more than the rated name-plate capacity, and with hydrogen cooling (now used with many units of 20,000 kilowatts and over) excess output may run up to 30-40 per cent over name-plate rating where other conditions are favorable.

THIS fact of excess capacity, together with widespread interconnection and power pooling, helps to explain why the frequent predictions of a general power shortage by the Federal Power Commission have not been borne out. In compiling its figures for total capacity, it is understood that the commission does not analyze the figures submitted by the utility companies, and that some of these are based on name-plate rating and others on actual capability. The totals for the industry are, therefore, probably on the conservative side. The commission's occasional chart supplements, showing "dependable capacity" and "net assured capacity" as compared with peak loads for the eight U.S. regions, are of great interest but a further explanation as to the exact method of compilation would be worth while. According to these charts, regional peak loads during 1947-8 have frequently exceeded "net assured capacity," yet there has been no real power shortage except for some temporary limitations on usage in California and elsewhere due to severe local drought conditions. "Tight" conditions are predicted for the coming winter in some localities, with possible rationing of industrial use of power. The FPC figures, if compiled on a uniform basis to show actual rather than theoretical capacity, would be helpful in assessing any local difficulties which may develop before the building program is completed.

The Fight over Competitive Bidding Exemptions

AT the same time that Otis & Co. of Cleveland is fighting the SEC over the Kaiser-Fraser affair, it is waging another battle with the commission over competitive bidding requirements on new security offerings. Otis & Co., allied with Halsey, Stuart & Co., Inc., has for some years maintained its position as "father" of the competitive bidding idea. In recent months Otis & Co. has been increasingly active in espousing this cause—out of all proportion, it would seem, to its position in the investment banking field. Former trust-buster Thurman Arnold, as counsel for Otis, has now entered the fray and is losing no opportunities to condemn the SEC for the "undermining" of competitive bidding through exemptions occasionally granted on utility preferred and common stock financing.

Recently Judge Arnold, for the third time in recent weeks, asked the commission to deny the request of a utility company for such an exemption. He requested that Electric Bond and Share be prohibited from selling 350,000 shares of Carolina Power & Light common stock through direct negotiation with an underwriting syndicate. Bond and Share later advised the commission that it has not yet obtained a definite purchase agreement from the syndicate.

*At end of August. D—Decrease. [1]Average capacity for month x hours in month. [2]Data for all utilities (electric, gas, telephone, etc.). Includes refunding. [3]January 1 to October 23, 1948. [4]Nine months ended September 30th.

RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER COMPANIES

	Telephone Companies *Bell System*	*10/27/48 Price About*	*Indicated Dividend Rate*	*Approx. Yield*	*Share Earnings* *12 Mos. Ended*	*Current Period*	*Previous Period*	*% Increase*	*Price-Earnings Ratio*
S	American T. & T.	153	$9.00	5.9%	Aug.	$9.94	$8.20	21	15.4
O	Cinn. & Sub.	76	4.50	5.9	Dec.	3.85	5.02	D23	19.7
C	Mountain States	105	6.00	5.7	Sept.	7.11	3.12	128	14.8
C	New England Tel.	85	5.00	5.9	June	4.68	4.98	D 6	18.2
S	Pacific Tel. & Tel.	96	6.00	6.3	Aug.	6.20	3.07	103	15.5
O	So. New England	121	6.00	5.0	Dec.	3.76	6.68	D44	32.2
	Averages			5.8%					19.3
	Independents								
C	Associated Tel. A	19	..	..	Dec.	D .44	D .56	..	..
S	General Telephone	25	2.00	8.0	June	2.04	1.75	17	12.3
C	Peninsular Tel.	42	2.50	6.0	June	5.70	..	..	7.4
O	Rochester Tel.	10	..	..	Dec.	.47	1.01	D53	20.2
	Transit Companies								
O	Baltimore Transit	3	..	..	..	..	..	..	..
O	Capital Transit	17	..	..	Dec.	D .38	3.81	..	..
O	Chic. S.S. & S.B.	8	.60	7.5	Dec.	1.38	1.61	D14	5.8
O	Cinn. St. Ry.	6	..	..	Dec.	1.57	1.59	D 1	3.8
O	Dallas Ry. & Term.	12	1.40	11.7	Dec.	3.39	3.08	10	3.5
O	Duluth Sup. Tran.	10	1.00	10.0	Dec.	2.75	4.03	D32	3.6
O	Kansas City Pub. Serv.	1½	..	..	..	..	..	..	..
O	Los Angeles Transit	5	.50	10.0	Dec.	.87	.92	D 5	5.8
S	National City Lines	8	.50	6.3	Dec.	1.54	2.11	D27	5.2
O	Phila. Transit	3	.30	10.0	Sept.	D .87	D .53	..	..
O	Rochester Transit	6	..	..	Dec.	D1.52	D1.37	..	..
O	St. Louis Pub. Serv. A	5	.50	10.0	Dec.	.37	1.01	D63	13.5
O	Syracuse Transit	24	3.00	12.5	Dec.	3.52	6.01	D42	6.8
S	Third Ave. Transit	8	..	..	..	..	..	..	..
S	Twin City Rapid Tr.	5½	..	..	Dec.	.62	4.29	D86	8.9
O	United Transit	5	..	..	Dec.	.21	1.76	D88	23.8
	Averages			9.0%					8.1
	Water Companies *Holding Companies*								
S	Amer. Water Works	8	$ .60	7.5%	June	$ .78	$ .80	D 2	10.3
O	New York Water Serv.	40	..	..	June	1.93	..	..	20.7
O	Northeastern Water	13	..	..	June	.92	..	..	14.1
	Averages			2.5%					15.0
	Operating Companies								
O	Calif. Water Serv.	28	2.00	7.1%	Aug.	2.45	2.63	D 7	11.4
O	Elizabethtown Water	117	6.00	5.1	Dec.	7.33	8.81	D17	16.0
S	Hackensack Water	32	1.70	5.3	Dec.	3.08	2.87	7	10.4
O	Indianapolis Water	17	.80	4.7	Dec.	1.19	1.98	D40	14.3
O	Middlesex Water	63	3.00	4.8	Dec.	5.71	4.93	16	11.0
O	New Haven Water	61	3.00	4.9	Dec.	3.34	4.01	D17	18.3
O	Ohio Water Serv.	20	1.50	7.5	June	2.29	1.91	20	8.7
O	Phila. & Sub. Water	20	.80	4.0	Dec.	2.70	2.63	3	7.4
O	Plainfield Union W.	73	4.00	5.5	Dec.	4.74	4.67	2	15.4
O	San Jose Water	32	2.00	6.3	July	2.69	2.85	D 6	11.9
O	Scranton-Spring Brook	10	.70	7.0	June	.86	.87	..	11.6
O	Stamford Water	54	1.80	3.3	Dec.	2.27	2.22	2	23.8
O	West Va. Water Serv.	13	1.00	7.7	Sept.	1.37	1.38	..	9.5
	Averages			5.6%					13.1

D—Deficit. E—Estimated. C—Curb Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange.

What Others Think

Underground Gasification of Coal

THE gasification of coal underground contains seeds of revolutionary developments in the mining, electric power, oil, and natural gas industries, according to an official of the Bureau of Mines. Dr. W. C. Schroeder, chief, Office of Synthetic Liquid Fuels, Bureau of Mines, made this assertion in an address before the Rotary Club of Birmingham, Alabama, in September of this year.

Dr. Schroeder qualified the above statement by saying that some of the barriers and obstacles on the way to these ultimate goals are high and strong, involving both economic and technologic considerations. "Time and money will be needed in their solution," he said.

The address dealt with the general subject "Production of Synthetic Liquid Fuels," but only the dramatic portion concerned with underground gasification is quoted here:

> . . . It is possible to partially burn (gasify) the coal underground, bring the gases to the surface, and then convert them to oil and gasoline. It is this bold step, with breathtaking promise in the elimination of the underground labor of mining, which has attracted the attention of the world to the experiments now going on at Gorgas, Alabama.
>
> . . . the coöperative experiment between the Alabama Power Company and the Bureau of Mines which was completed . . . last fall . . . resulted from the deep and active interest of three people in the utilization of coal in the United States. These are Mr. Thomas Martin, president of the Alabama Power Company, Dr. Milton H. Fies, manager of coal operations for this company, and Dr. A. C. Fieldner, of the Bureau of Mines. The preliminary test showed that continuous combustion could be maintained underground to produce a useful gas with no serious loss of coal or combustible material.
>
> A new and much larger experiment will be conducted by the same coöperating groups this winter. This time certain major steps forward will be attempted. First, the project is laid out to burn continuously through a large bed of coal by drilling from the surface; second, pressures, air velocities, and temperatures will be controlled to produce a gas of 100 BTU per cubic foot or better; and, third, this gas will be used for power generation if the first two steps are successful.
>
> With 90 or 100 BTU per cubic foot, gas from underground workings can be used directly to operate a gas turbine or can be burned under a steam boiler to supply electric power. To be useful in the production of synthetic liquid fuels the heating value should be raised to around 300 BTU and this can be done largely by the elimination of nitrogen from the gas. Since nitrogen comes in with the air which is blown in to burn the coal underground an obvious solution would be to blow only oxygen into the mine. This can be done by making oxygen from air and using this to feed the mine. Oxygen tests will be tried as the work proceeds at Gorgas.
>
> This is not the only way by which a richer gas may be produced through underground gasification. As strange as it may seem, the coal can be "burned" with highly superheated steam to produce a gas of 300 BTU per cubic foot or better. In this case the heat for combustion is supplied not by the combination of coal and oxygen but by the superheated steam. Such a process would supply an excellent synthesis gas as well as a gas for power production. Of course a combination of superheated steam and oxygen is possible.
>
> So far we have talked about gases from 90 to 300 BTU per cubic foot. Even the rich gas is not suitable for long-distance pipeline distribution like natural gas. The bag of tricks still is not exhausted, however. The lower heating value gases from the underground workings which consist largely of carbon monoxide and hydrogen can be catalytically combined to give a gas of 850 or 900 BTU which can be substituted for natural gas for many uses.

From even this brief description the exciting possibilities of the project can be seen. The processes for converting coal to oil and gasoline can follow the traditional steps of mining the coal, bringing it above ground, and then sending it to the synthetic oil plant for processing.

Alabama Power Company and Its Community

THE success of business groups in Alabama in converting war plants into facilities for peacetime production is a story of triumph of community enterprise. The citizens of Talladega county were faced with the challenge of a shutdown of war plants costing over $200,000,000 and employing thousands of local workers at the end of World War II.

How the interests and talents of many individuals and groups were harnessed in a concerted promotion of new industries on the sites of these idle war plants is a thrilling example of high achievement.

In July, 1944, a committee known as the Talladega County War Plants Conversion Committee was organized. It was made up of representatives from Childersburg, Sylacauga, Talladega, and the Alabama state chamber of commerce. Thomas W. Martin, president of Alabama Power Company, was elected chairman.

The Federal government had built in Talladega county a huge powder plant, a sulphuric acid plant, and a bag-loading plant, each having possible use for peacetime industries.

The conversion committee's first step was to engage engineering firms to make a detailed survey of the possibilities. The University of Alabama aided in a study of mineral raw materials in the territory. Congress appropriated $80,000 for an investigation by the U. S. Bureau of Mines of the unknown coal reserves in the Coosa coal field near the Childersburg plant.

IT was found that one plant could be used to manufacture newsprint; another, in the manufacture of a variety of textiles, including rayon; and a third for making certain chemicals, especially sulphuric acid.

With such a sound beginning, with broadest coöperation, and with persistent hard work, it was a foregone conclusion that the enterprise would produce results. The activity reveals all of the characteristics common to planned and well-organized operations of utility companies.

The newsprint project took the form of a new company, locally organized, called the Coosa River Newsprint Company. Beaunit Mills, Inc., through a subsidiary, American Development Company, has obtained a long-term lease from the Federal government for facilities for rayon yarn production. The sulphuric acid plant has been put into operation by the Tennessee Copper Company.

Thus, through the efforts of the Talladega County War Plants Conversion Committee, most of the major wartime facilities in the county have been reactivated for peacetime production. On the day the committee formally dissolved, April 16, 1948, ground was broken near Childersburg for the $32,000,000 Coosa River Newsprint Company plant.

The committee has recorded the details of its work in a 28-page booklet entitled "Triumph of Community Enterprise." Until copies are exhausted, they may be obtained by writing Thomas W. Martin, president, Alabama Power Company, Birmingham, Alabama.

Demands for Telephones Still Increasing

AN almost unbelievable increase in demand for telephones is revealed by figures presented by H. Randolph Maddox, president, Chesapeake & Potomac Telephone Companies, in an address before the Maryland Utilities Association late in September. He said, in part:

> Despite the tremendous additions to our facilities which have already been made, we are by no means out of the woods. The demand for telephone service continues at a high level. As a matter of fact, it has far exceeded the expectations at the time we were preparing our postwar plans. If clearing up the wartime backlog of orders had been the sole problem, our job today would have been practically completed. But this has not been the case. Instead of a gradual tapering off of demands for service, the exceptionally high rate of new requests for tele-

phones has continued. For every order filled, more new applications are received. While we have filled practically all orders for service received prior to 1946, we still have 85,000 applications on hand in our four companies. We are working hard to remedy this situation. To do so, we must provide still more new buildings, still larger amounts of central office apparatus, telephone lines, and other equipment. Assuming the public demand continues at about present levels, it appears that we will need in the next several years about $200,000,000 to build the additional plant required. This amount is in addition, of course, to the more than $175,000,000 expended in gross construction since VJ-Day.

Mr. Maddox emphasized the full import of what is taking place, stating the following comparison: The plant investment of $267,000,000 at VJ-Day was the result of more than fifty years of building in order to meet the demands since the inception of the telephone business in these areas. At the rate of increase during the three years since VJ-Day—the total investment will double in approximately four more years or within a span of seven years.

—G. M. W.

Annual Report for Employees

ANNUAL reports of corporations prepared especially for employees represent a comparatively new development in employee relations. Numerous companies have tried them, but the practice is not general. Consolidated Edison Company of New York, Inc., distributed a unique 17-page employees' annual report for 1947. The introductory letter to employees and their families, signed by the president and executive vice president, sets the tone of the pamphlet as follows:

> This review of Con Edison's progress during 1947 deals with matters that directly affect your job—past, present, and future.
>
> We face the year ahead with problems peculiar to our time. We have the pressing necessity of expanding our facilities to meet New York's ever-growing demand for electric, gas, and steam service, at a time when construction costs are soaring. This requires spending at least $280,000,000 over the next four years, most of which must be raised on Con Edison's credit in the investment market.
>
> Another problem is the mounting cost of material, labor, and other items needed for the normal operation of our business, since relief in the form of rate adjustments is necessarily slow. Increased efficiency and devotion to duty on the part of every individual in the organization are needed to carry us through. This report shows *how these problems affect you*—it will help you to answer many of the questions asked by your family, friends, and the public generally.

The subject matter covered in the booklet is indicated by the following featured titles:

> Our 156,842 stockholders earned less
> The tax parade
> A closer look at your wage dollar
> We set an example of voluntary collective bargaining
> "Extras" . . . over and above your pay (vacations, insurance, etc.)
> Medical and mutual aid were busy
> Some of the major projects completed or well under way

Basic financial data, such as the income statement, are presented in simple, attractive form with the aid of short, concise text, easy to understand charts, and cartoons. The record-breaking high lights of operation are summed up on a single page, and facing this there is an explanation of the high cost of doing business in 1947.

Bond and Share Divestments

THE difficulties involved in complying with the Public Utility Holding Company Act of 1935 are clearly revealed in the 1947 annual report of Electric Bond and Share Company. Reorganization takes a great deal of time. A large part of the company's assets are tied up in reorganization proceedings

"I AIN'T ACCUSING NOBODY, BOSS—I'M JUST SAYING MY POCKETS BEEN PICKED CLEAN!"

and, until they are completed, earnings are either restricted or do not flow through Bond and Share at all.

In their letter to stockholders, Curtis E. Calder, chairman, and George G. Walker, president, explain some of the problems as follows:

> Directors and officers are doing their best to bring the job of conformance to an early conclusion. This has to be accomplished, however, in accordance with the requirements imposed by the act, and under the regulations which have grown up under it, as well as in accordance with the requirements of administrative procedure before the SEC and the Federal courts. There is abundant opportunity for delay by objecting or dissenting parties. The simple fact is that from a practical standpoint earnings, markets, and general economic conditions do not stand still for the many months of processing usually required between the date of the filing of a plan with the SEC and its ultimate enforcement by the courts. Plans which are fair and reasonable when filed often fail because of these delays and changed conditions.

Nevertheless progress has been made. Bond and Share accounted for 40 per cent of all the divestments (measured by assets of subsidiaries disposed of) made by the entire industry during the 1947 fiscal year, although the company's assets at the beginning of 1947 were only 20 per cent of the total of holding company assets under the act.

When compliance is completed, Bond and Share no longer will be a large public utility holding company. Instead of its assets being invested in utility equities on what was expected to be a permanent

basis, they will to a large extent be a source of capital which can be available for investment in other fields. In this connection the letter to stockholders said:

> . . . The processing of plans under the Holding Company Act is having an effect on the earnings of Ebasco since under the terms of the act, so long as clients are "associate" companies, services rendered must be billed at cost. . . .
>
> It is, in fact, practically a new enterprise already, far different from what it was prior to the passage of the Holding Company Act. Ebasco, instead of being an integral part of a widespread public utility system, is even now engaged principally in rendering services profitably on a purely competitive basis to nonaffiliated public utilities and other types of business, both large and small. The fund of knowledge and skill of this experienced and capable organization is and will continue to be a very important factor in the development of earnings for Bond and Share.

The management recognizes that the reasons why compliance should take so long to complete may well be a source of mystery to some of the stockholders. Hence, the annual report contains much material aimed at explaining the detailed process of reorganization.

Individualism or No

PRACTICALLY all economists have a pet scheme for avoiding booms and busts. A stable, but gradually expanding, economy is their ideal. Violent ups and downs in the general price level should be avoided, they concede.

The author of the popular book, *The Road to Serfdom*, Friedrich A. Hayek, has presented his judgment on the problem in a new book entitled *Individualism and Economic Order*. Right here it should be warned that if the reader has firm convictions as to the value of the gold standard as a means for regulating money, he will have moderate fits if he attempts to read Chapter X of Mr. Hayek's new book. It is entitled "A Commodity Reserve Currency."

But first, let's take a quick look at Mr. Hayek and his new book.

Friedrich A. Hayek is a professor of economics at the London School of Economics. His *Individualism and Economic Order* is a collection of twelve essays. In his own words, "they range from discussions of moral philosophy to the methods of the social sciences and from problems of economic policy to pure economic theory." He states that the volume is not intended for popular consumption. He is right. There are two or three chapters which may be considered as supplementary to *The Road to Serfdom*.

The professor is called antisocialist and antiplanner. He is individualistic to the nth degree; so much so in fact that he has definite ideas as to changing many of the presently accepted methods of conducting American business. One suspects that he is trying to sell a little planning of his own. To this reviewer, Mr. Hayek's idea on the basis of money is the most intriguing.

The idea, a commodity reserve currency, is not new. It has been tossed about in the academic world for a number of years. As Mr. Hayek says, "Benjamin Graham, of New York, and Frank D. Graham, of Princeton, who had, unknown to each other, arrived at very similar ideas, have in recent years fully elaborated their proposal in a series of important publications." A few quotations from Chapter X of *Individualism and Economic Order* will present a rough idea of what the author has in mind:

> The basic idea is that currency should be issued solely in exchange against a fixed combination of warehouse warrants for a number of storable raw commodities and be redeemable in the same "commodity unit." For example, £100, instead of being defined as so-and-so many ounces of gold, would be defined as so much wheat, *plus* so much sugar, *plus* so much copper, *plus* so much rubber, etc. Since money would be issued only against the complete collection of all the raw commodities in their proper physical quantities (twenty-four different commodities in Benjamin Graham's plan), and since money would also be redeemable in the same manner, the aggregate price of this collection of commodities would be fixed, but only the

aggregate price and not the price of any one of them. . . .

With this system in operation an increase in the demand for liquid assets would lead to the accumulation of stocks of raw commodities of the most general usefulness. The hoarding of money, instead of causing resources to run to waste, would act as if it were an order to keep raw commodities for the hoarder's account. As the hoarded money was again returned to circulation, and demand for commodities increased, these stocks would be released to satisfy the new demand. Since the collection of commodities could always be exchanged against a fixed sum of money, its aggregate price could never fall below that figure; and, since money would be redeemable at the same (or an only slightly different) rate, their aggregate price could never rise above that figure.

Mr. Hayek concluded the chapter with the statement that if this idea can be combined with the reconstruction of an international monetary system which would once more secure to the world stable international currency relations and a greater freedom in the movement of raw commodities, "a great step would have been taken in the direction toward a more prosperous and stable world economy."

INDIVIDUALISM AND ECONOMIC ORDER. By Friedrich A. Hayek. 272 pages. The University of Chicago Press, Chicago. Price $4.

Notes on Recent Publications

Westinghouse in World War II. The story of Westinghouse Electric Corporation in the recent war is the subject of a new book written by David O. Woodbury. It is entitled *Battlefronts of Industry*, and stresses the ingenuity and resourcefulness of the scientists and engineers. Told in dramatic fashion is the story of how Westinghouse designed and produced electric torpedoes, bomb fuses, jet propulsion units, machinery for manufacturing the atomic bomb, and many other vital products which proved this country's technological superiority at war. The book also points the way to better peacetime living through continued research and development. BATTLEFRONTS OF INDUSTRY, by David O. Woodbury, 1948. John Wiley & Sons. 342 pages. Price $3.50.

Passamaquoddy Project. The need for more electric power and the future prospects of shrinking oil and coal supplies may result in serious attempts to revive the Passamaquoddy project at Eastport, Maine. It has been claimed that the 18-foot tides at this location may be harnessed to generate between 500,000 and 700,000 horsepower in electric energy. For persons desiring to read an objective history and evaluation of all the factors involved, including politics, there is a carefully written 14-page article in the August, 1948, issue of *Land Economics.* The author is Lincoln Smith, assistant professor, department of political science, University of California, at Los Angeles. The writer concludes that the next step in Quoddy's history will depend upon the outcome of further study by the United States and Canadian governments through the International Joint Commission as to the international project's economic feasibility and political desirability. "Tidal Power in Maine," *Land Economics,* a quarterly journal. 121 South Pinckney street, Madison, Wisconsin. $1.50 a copy.

George E. Roberts, 1857-1948. The National City Bank of New York has prepared a 26-page booklet in memory of the bank's internationally known economist, George E. Roberts, who died June 6, 1948, at the age of ninety. Text of the booklet consists of excerpts from the writings of Mr. Roberts in the monthly letter of the bank, which has a circulation of more than 150,000 copies. Economic truths so plainly presented by Mr. Roberts during his editorship of the letter apply most pertinently to problems of the present day. The excerpts, each dealing with a separate subject, are grouped under the following main headings: Wealth and Progress, International Trade and Exchange, and Money and Purchasing Power.

Relocation of Industry. J. W. Follin, assistant administrator, Federal Works Agency, is the official liaison of that agency with the National Security Resources Board in the development of its policies on strategic relocation of industry and government. In the August, 1948, issue of *Public Construction,* published by FWA, Mr. Follin wrote a 3-page article on "Public Works and Relocation of Industry." The article stresses the importance of planning public works and services to go forward with private plant construction regardless of whether the development involves expansion of an existing urban area or the establishment of a completely new city. The publication also carries current statistics on construction contracts awarded by state and local governments for all classifications including utilities.

The March of Events

In General

Question of Authority Raised

CHAIRMAN George A. Dondero of the House Committee on Public Works last month revealed that the House Committee on Appropriations had referred to his committee a report on proposed modification in the terms of revenue bonds issued by the Grand River Dam Authority of Oklahoma and held by the United States. The report raised a question as to existence of adequate authority to modify the terms of the bonds involved, which is within the jurisdiction of the Committee on Public Works.

Chairman Dondero has instructed the staff of his committee to assemble data concerning the Grand River Dam Authority matter for the information of the committee and to be available for such public hearings as may be deemed necessary. In view of the disclosures of the Committee on Appropriations, Chairman Dondero pointed out that the interests of the taxpayers of the nation are directly involved and that it is the duty of Congress to protect such interests.

Congressional Ban Doesn't Apply

THE Comptroller General recently ruled that a congressional ban against installation of power "facilities" at the Canyon Ferry, Montana, reclamation dam does not prohibit the use of funds for "power plant construction."

This will permit erection of a dam designed to include a powerhouse building and foundation and penstocks (tubes through which water is brought to turbines for the generation of electricity).

The ruling was made public by Reclamation Commissioner Michael W. Straus, who said that bids on the main dam structure would be opened December 1st, as scheduled.

The last Congress appropriated about $3,000,000 to begin actual construction of Canyon Ferry dam, to be located on the Missouri river about 25 miles from Helena. However, the appropriation carried the provision that none of it "shall be available or used for or in connection with the acquisition or installation of the power facilities or transmission facilities for delivering power from the Canyon Ferry project."

Executive Ridicules FPC

RIDICULING claims of some members of the Federal Power Commission that domestic and commercial users of natural gas have been "saved" large sums of money as a result of commission regulations, James E. Pew, of the Sun Oil Company, recently said people are paying lower prices because of the ingenuity of natural gas companies and not because of government controls.

Technological advancements and the ability of companies to find industrial markets for their surplus gas during periods of low domestic and commercial consumption make it possible for them to supply small users at lower prices, Mr. Pew told the annual meeting of the Independent Natural Gas Association of America, in Tulsa, Oklahoma. Mr. Pew is manager of Sun's natural gas and natural gasoline division.

Charging that the FPC "must regulate in order to justify its existence as a regulatory body," Mr. Pew blamed such controls for the underdevelopment of the country's natural gas resources

California

Claims Additional Tax Money Due

THE Sacramento city council last month instructed City Attorney Everett M. Glenn to make an immediate demand upon the Pacific Gas and Electric Company for full payment of all gas franchise tax money assertedly due the city for the last twelve years. This action was taken on motion of Councilman Leslie E. Wood after Glenn submitted a written opinion to the council in which he contended the city has been receiving only one-fourth the franchise tax to which it is entitled.

While actual figures had not been computed for the period since 1936, when the present franchise was granted the PG&E, it was estimated the city stood to collect at least $200,000 if the city attorney's contention proves correct.

Glenn holds that under the terms of the franchise the PG&E should pay to the city 2 per cent of its annual gross revenue based on the sale of natural gas in Sacramento.

The private utility, however, contended a state supreme court decision, handed down many years ago in connection with the computation of franchise tax payments, gave the company authority to make its payments on a different basis than that presented by Glenn.

The city attorney recommended to the council that in the event PG&E refuses to pay the back tax money court action be instituted to collect the payments.

Iowa

Electric Rates Increased

ELECTRIC rates of the Iowa Public Service Company will be increased about 8 per cent, starting with the November 2nd readings.

George A. Neal, president and general manager, said the company must have more revenue to keep up with the higher cost of payrolls, taxes, fuel, and other materials.

The higher rates will affect 200 cities and towns in western and northern Iowa, including Waterloo, Carroll, and Audubon.

The adjustment does not affect Sioux City, which is served by the Sioux City Gas & Electric Company, an Iowa Public Service Company affiliate.

The company increased rates 2 per cent last April, but this did not affect the first 50 kilowatt hours for residential use nor the first 75 kilowatt hours for commercial use.

Kentucky

Danville Gas System Sold

SALE of Kentucky Utilities Company's gas distribution system in Danville to Western Kentucky Gas Company was approved last month. The state public service commission announced it had granted a joint petition of the two companies. Sales price of the Danville system, which distributes natural gas, was announced as $155,000.

In line with announcement last year by R. M. Watt, KU president, the company has been disposing of its gas and water properties and confining its activities to the electrical business.

Gas plant sales already made this year include the systems at Lexington, Maysville, and Paris. KU still owns those at Paducah and Shelbyville. Its water companies were sold this year to Kentucky Water Service Company at Somerset.

Drops Fuel Cost Rate Plea

THE Kentucky Utilities Company on October 27th abandoned its attempt to add a fuel-cost clause to its electric rates. Squire R. Ogden, Louisville, KU attorney, said recent improvement in the company's revenue made a fuel clause unnecessary for the present.

However, he said that if the revenue moves downward, the company will reinstate its application and put higher rates to cover coal costs into effect under bond. Then he made a motion for a general continuance of the case. The state public service commission sustained the motion.

The fuel addition would have affected some 23,000 industrial and commercial customers. In its present form the application would not affect residential users. The clause was designed to bring in $662,000 more revenue annually.

Massachusetts

Rate Petitions Filed

WHILE more than 123,000 customers of Massachusetts electric light companies will have their rates reduced, effective December 1st, about 100,000 users of gas may find their rates increased, it was disclosed recently by the state department of public utilities.

Five electric light companies have filed petitions seeking rate reductions totaling $344,000 a year and the Boston Edison Company also was expected to file for a rate reduction of $612,000, department officials said.

Five gas companies, including electric companies which sell both commodities, have asked for rate increases totaling $445,000.

Missouri

City Sells Municipal Plant

THE mayor, board of aldermen, and voters of the city of Jamesport recently authorized the sale of the city's municipal electric system to the Missouri Public Service Corporation, a private public utility supplying electric service to many other towns of western Missouri. At the same election held October 15th, the voters approved a 20-year franchise grant to the purchasing company.

The purchasing company will pay $20,000 for the system and is required by the franchise to completely rebuild in a year.

The mayor and board of aldermen had urged the voters to consider that the system was in bad repair and was so inadequate that service for heating appliances could not be supplied; that the city was faced with a new bond issue of $60,000 for necessary rehabilitation; that during the thirty-five years of municipal operation the citizens had been required to pay off bonds of $40,000 plus interest through tax levies, and the additional $60,000 debt also would have to be paid through taxes, since with increased labor and material costs there was no prospect of net earnings from the electric operation.

New York

Asks New Rate Rise

THE Brooklyn Union Gas Company filed a petition on November 1st with the state public service commission for a temporary increase in gas rates to yield a gross revenue of approximately $2,200,000 for 1949.

For the average domestic consumer of the company, the new rate would represent an increase of 5½ per cent, or 14 cents on a monthly rate, according to a company representative. He said that the present monthly cost, for an average customer, is $2.61, and the new rate would raise this to $2.75.

Brooklyn Union Gas Company serves more than 800,000 customers in Brooklyn and Queens.

The company was granted a gross revenue increase of $3,500,000 last May 6th. The new demand is to meet increased labor costs, it was said, and "for the cost of production materials and the need for return on additional investments."

North Dakota

Rate Increase Approved

An increase in electric and gas service rates requested by the Northern States Power Company for Fargo and other North Dakota municipalities was approved last month by the state public service commission, effective with billings on and after November 1st.

Allen S. King, Fargo manager for the power company, said it was with considerable reluctance that the company reversed its long-time practice of reducing rates. "Rapidly rising production costs and the necessity of attracting reliable service were the major reasons for the company request."

King pointed out that the average residential customer uses about 100 kilowatt hours of power monthly. In these cases the new rate would be equal to or less than the rate in effect in January, 1946, King continued.

Commercial rates, he said, will average an increase of about 12 per cent.

Pennsylvania

Court Overrules SEC

The United States Court of Appeals of the District of Columbia ruled on October 28th that the Pittsburgh Railways Company is not now subject to the Public Utility Holding Company Act.

The decision reversed an order of the Securities and Exchange Commission placing the company under holding company regulations. The company operates the Pittsburgh street railway system.

In line with SEC policy, the commission had given the company an exemption from holding company regulations pending completion of reorganization proceedings.

The Pittsburgh transit concern has been in voluntary bankruptcy since May 10, 1938.

Virginia

Gas Rate Increase Authorized

The state corporation commission recently authorized the Virginia Electric & Power Company to boost gas rates in the Newport News and Norfolk metropolitan areas, effective November 1st. Surrounding areas also were affected.

Under the new schedule, the proposed rate increases are calculated to bring in additional revenues of $513,000 per year to produce a return of 5.5 per cent on company investment.

Progress of Regulation

Field Price Theory Rejected As Substitute For Original Cost in Gas Rate Making

THE Federal Power Commission, in a 3-to-2 decision, refused to adopt the theory of substituting the field price of natural gas, or its commodity value, instead of actual production cost. The majority commissioners said:

> We previously have had occasion to consider the infirmities and inequities of the fair value theory and there is no need to lengthen this opinion with a repetition of our views. Suffice it to say that these same infirmities and inequities likewise exist in this variant of the fair value theory and the arguments advanced by respondents on behalf of the field price method, as applied to production property, are no more persuasive than their arguments for the use of reproduction cost for pipe lines and other property. We reiterate our adherence to the principles of rate making enunciated by Mr. Justice Brandeis in the Southwestern Bell Case, 262 US 276, 289, PUR1923C 193, which were intended to assure the utility investor that he would receive a fair return on his investment devoted to the public service and that the consumer would not be compelled to pay a return upon an increment of value above such investment.

Exclusion from evidence of testimony relating to the field price of natural gas by the trial examiner was held to be proper. Two commissioners, in a dissenting opinion, agreed that exclusion of reproduction cost studies was correct but "could not join in the effort of the majority to draw from rejected evidence concerning gas prices in the field conclusions as to what effects might follow from the application of any such standard to the gas production operations."

The commission staff found that a service life of fifty years and a resulting depreciation rate of 2 per cent would be appropriate in determining the reserve requirement for mains. But when it came to the determination of the depreciation rate for field lines, due consideration was given to losses realized when pipe is moved from one location to another and a rate of 3.33 per cent was found appropriate. The companies sought a higher rate, but the commission agreed with its staff.

The companies also contended that gas well equipment should be depleted on the ground that the possibilities of reuse of the materials are not nearly so great as in some other natural gas operations. The commission agreed with its staff that the reserve for gas well equipment should be determined on a depreciation basis.

A rate of return of 6 per cent was held to be the maximum allowable. It was said that the earning capacity of utilities is much more stable than that of industrial and railroad enterprises and that the natural gas industry in general is growing steadily and rapidly and is in a favorable situation from a financial standpoint. Regulation under the Natural Gas Act was said to have a seasoning effect upon the securities of such companies, and their securities were becoming more desirable to the investor.

A rate of reduction was ordered in the case of the Kentucky West Virginia Gas Company in connection with its transportation and sale of gas to Louisville Gas & Electric Company and Pittsburgh & West Virginia Gas Company. It was believed, however, that it would not be practicable to require Pittsburgh & West Virginia Gas Company to put into effect rate schedules which would bring

about a reduction in its revenues in so small an amount as the excess earnings found by the commission indicated. *City of Pittsburgh v. Pittsburgh & West Virginia Gas Co. et al. (Opinion No. 168, Docket Nos. G-627, G-635).*

Gas Curtailment Permitted during Emergency

THE North Dakota commission authorized a natural gas company to place large commercial and industrial consumers on an interruptible basis and to curtail, but not interrupt, service to small customers so that capacity might be made available to new residences.

Several customers objected on the ground that since they had installed gas-heating equipment their buildings had been remodeled and installation of heating plants fired with coal or oil was no longer practicable. They claimed that such an installation would require the use of space now utilized for other purposes, and that in some instances separate buildings would be needed for such heating plants.

They testified that fuel oil was not readily obtainable and that coal was hard to get because many local mines had been abandoned in recent years.

In regard to the obligation of the utility to furnish natural gas service under its operating authority and under various municipal franchises, the commission stated that such instruments do not, and cannot, require performance of the impossible.

The North Dakota commission said:

> Moreover, we believe it would be an irresponsible act on the part of the commission to order the company to serve all present and prospective customers without restriction when such procedure might create a situation where the company would be unable to supply even the minimum needs of residential users during a period of extremely cold weather. However, it should not be inferred that the company will discharge its obligations to the public merely by maintaining the status quo. The company can, and should, make every effort to expand and improve its facilities so as to increase the capacity of its natural gas pipe-line system.
>
> If the company were required, under existing conditions, to serve all present and prospective gas customers on a firm basis, we cannot escape the conclusion that the public health, safety, and welfare would be endangered, particularly if the area served by the company should experience a prolonged period of cold and stormy weather, which is always a very real possibility in western North Dakota during the winter months.

Re Montana-Dakota Utilities Co. (Case Nos. 4455, 4491).

Restraint of Directory Listings

THE Colorado commission held that a telephone company must exercise its discretion in accepting directory listings and should not allow misleading listing or advertising. Unless the phone company's action is arbitrary, the commission believes that it may not interfere.

This ruling was made when the commission refused to rehear a case in which it had denied a request for an order requiring a telephone company to list a certain name in the directory. *Shotkin, Trustee v. Mountain States Teleph. & Teleg. Co. (Case No. 4972, Decision No. 30878).*

Commissioner Objects to Statewide Telephone Rate Making

THE Wisconsin commission ordered a revision of the rates of a telephone company where the record indicated that the company's return at some exchanges would be rather high, at other exchanges unreasonably low. The rates

authorized would yield an average return of 6.52 per cent for all exchanges.

Commissioner Bryan, in a dissenting opinion, attacked the majority view as substituting system-wide rate making for the true exchange basis. He stated his objection to this method in these words:

> The processes followed in arriving at the rates authorized in the majority decision, while taking into consideration the return at specific exchanges, do arrive at a statewide profit and rates which will produce that profit. This necessarily involves the loading of profitable exchanges with rates higher than necessary on a true exchange basis to make up for the lack of adequate earnings at the unprofitable exchanges.
>
> In the absence of a showing that the public interest requires a regional grouping of exchanges which have a definite community of interest, geographical or otherwise (other than statewide), I favor the true exchange basis under which the company must itself shoulder the loss at exchanges where salable rates will not produce a reasonable return.

Re North-West Teleph. Co. (2-U-2636).

Transit Company Allowed to Eliminate Token Fares

THE Kentucky commission allowed a transit company to eliminate token fares, leaving in effect only a fare of 10 cents for a single ride for each fare-paying passenger carried within the city of Louisville, except schoolchildren.

The company claimed that 7 per cent of its rate base was a reasonable amount for it to earn annually in net operating income. It introduced evidence in support of that contention. No evidence was introduced in opposition to the propriety of this return. The commission allowed it. This return was in accordance with a former provision of a contract between the company and the municipality in which it operated.

There were presented a number of complaints concerning the inadequacy of the service rendered by the company. While the commission believed that these complaints were well founded, it did not deem the evidence to be sufficiently comprehensive to warrant an order as to the adequacy of service at the time. It said:

> The commission realizes that conditions incident to the modernization of the company's plant must inevitably result in temporary inconveniences and crowded conditions here and there in the system. The company, however, has a legal duty to render adequate service to the public it serves and should take prompt steps to remedy congested conditions wherever they exist.

The record indicated that the proposed fare might yield the company a return of $33,700 in excess of 7 per cent, although it was noted that this was predicated upon estimates only, and might or might not be realized by actual operating experience.

The commission pointed out that it would be impractical to divide this excess by 85,000,000, the number of passengers carried annually, and to apply the resulting fraction of a mill to a fare. However, it did believe that the company should not be permitted to transfer to surplus accounts, for the benefit of its stockholders, that amount in excess of 7 per cent which it might earn under the new fare.

It held that this amount should be required to be transferred to the company's suspense account for property abandoned. This restriction would protect the public against unreasonable earnings by the stockholders and would tend to hasten the day when fares might be reduced. *Re Louisville Railway Co. (Case No. 1697).*

Forfeiture of Exclusive Right to Serve

THE Indiana commission ordered that a small telephone company should no longer have an exclusive right or authority to serve in the territory occupied by it, after an investigation of the adequacy of utility service.

The company, over a period of years, had failed to render adequate service. It was said to be the experience of the commission that the company had not taken steps to improve its plant or service except sporadically, and then only after the investigation of complaints, conduct of hearings, writing of orders, and further investigation of and warnings by the commission.

The commission said:

> It is our opinion that no regulatory body should be required to constantly police a public utility, or to keep such utility under constant or frequent surveillance in order to see that its orders are obeyed, thus necessarily taking time from other matters of equal importance.
>
> This commission is of the opinion that a public utility has a high responsibility to render adequate public service in return for the monopolistic privileges granted to it under the law. When such utility fails, refuses to or is unable to render such service it should forfeit its exclusive right to operate in such territory. The public interest is paramount.

Re Sharpsville Teleph. Co. (No. 20634).

Dissolution Order Does Not Preclude Borrowing By Holding Company

THE Securities and Exchange Commission authorized an intermediate holding company to borrow money to purchase stock of two subsidiary public utility companies to finance construction by them. The contemplated construction would tend to produce increased earnings for the subsidiaries. Also, their equity ratios would be improved.

A plan of liquidation of the subholding company had been approved. Therefore, the question arose as to whether it would be able to satisfy the standards of § 7 of the Holding Company Act governing the proposed borrowing. The commission said:

> Under ordinary circumstances we doubt whether we would be able to make the affirmative findings required by § 7(c) in a situation such as Light & Power finds itself. However, there are particular circumstances in this case which must be considered. Under the plan for the liquidation and dissolution of Light & Power, North American will receive all the assets of Light & Power after satisfaction of the interest of the public holders of the common stock of Light & Power and North American will expressly assume all of Light & Power's remaining liabilities. Thus, if the pending plan for liquidation and dissolution is consummated prior to the maturity of the proposed note, North American will assume the balance due thereon. The record, in this respect, indicates that North American will have sufficient cash resources under these circumstances to permit prompt payment of the note. In the event the dissolution of Light & Power does not occur until after maturity of the proposed promissory note, the record indicates that Light & Power will have sufficient cash resources not only to meet the obligation but will also in all probability be able to prepay the loan prior to its maturity. Accordingly, we have concluded that we may make an appropriate finding pursuant to § 7(c)(2)(D) and that no adverse findings are required under § 7(d).

The commission also found that liquidation of the subholding company would not be impeded or prevented by this transaction. *Re North American Light & P. Co. et al. (File No. 70-1855, Release No. 8379).*

Commission Restrained from Interfering With Rate Increase Pending Appeal

THE Tennessee commission, in *Re* Southern Bell Teleph. & Teleg. Co. (1947) 72 PUR NS 264, denied the right to increase telephone rates. The Tennessee Chancery Court, in Southern Bell Teleph. & Teleg. Co. *v.* Railroad and Public Utilities Commission (1948) 74 PUR NS 150, held that the commission's order was illegal and that the rates it sought to preserve were confiscatory. The matter is now before the Tennessee Court of Appeals, and it has acted to permit the

proposed rate increase to go into effect.

Under Tennessee law an appeal by the commission from the decision of the chancery court would vacate the court decree and continue the commission order in effect. So the company asked the chancellor to keep an injunction in force pending appeal. He refused to do this on the ground that his authority to continue an injunction in effect on appeal applies only to a preliminary injunction that is or has been dissolved and not to a final injunction.

The commission appealed from the court decision on its rate order, and then the company asked the court of appeals to grant an injunction. That court overruled an objection that the appeal should have been to the supreme court instead of the court of appeals, and it held that it had jurisdiction to issue an injunction.

Counsel for the commission argued that rate making is not a judicial but a legislative function vested exclusively in the commission. Neither the utility nor the courts, he said, have any right, directly or indirectly, to interfere with the commission's rate-making authority and the application for an interlocutory injunction really amounted to a request for the court to fix rates.

The court said it was unnecessary to undertake a discussion of the respective rôles of the utility, the commission, and the courts in a controversy like this. It concluded, however, that the company had the right to put its revised tariffs into effect subject to the commission's power to suspend them.

Although it is true that the fixing of rates is a legislative act, the court continued, it is subject to judicial review. Although on a review by certiorari (to determine whether the commission has acted in excess of its power or whether there is evidence to support its findings) the scope of review is narrow and the court is bound by commission findings of fact supported by substantial evidence, this, the court held, is not the case when a court of equity is called upon to determine whether the commission's action has transcended the constitutional limits of the legislative sphere—whether the rate fixed is confiscatory. In such a case the court must exercise its own independent judgment upon both the law and the facts.

The chancellor had done this and decided that existing rates were confiscatory. That decision was supported by the presumption that it was correct. If the commission's order were kept in force pending appeal, the company would suffer operating losses. Therefore, it was concluded that an injunction should be granted subject to the posting of a bond to guarantee refunds if the final decision should be against the company.

The court referred to many cases in which injunctions had been granted against the enforcement of confiscatory rates. Some involved orders reducing rates; others refused to increase rates. The principle was said to be the same in both classes. Confiscation, said the court, is effected as well by refusing to increase rates up to the level of compensation as by reducing them below that level. *Southern Bell Teleph. & Teleg. Co. v. Tennessee Railroad and Public Utilities Commission et al.*

Veteran's Attempt to Reacquire Carrier Monopoly Defeated

THE Pennsylvania commission stressed the public interest consideration in denying a returning veteran's application for an order revoking a so-called interim certificate given a competitor. The veteran had operated as a contract carrier serving a sugar company prior to his entry into the armed forces. While he was away a competitor sought what was understood to be a certificate to operate in his territory during his absence. The commission did not limit the duration of the competitor's certificate.

The commission framed the issue of the proceeding in these words:

> That respondent, at the time of application and subsequently thereto, contemplated not permanent but temporary authority, does not,

in our opinion justify modification of respondent's existing rights to serve Pennsylvania Sugar Company. Our only concern in the present proceeding is to determine whether or not the rights of respondent and James A. Averill to serve Pennsylvania Sugar Company are conflicting to the extent that some modification is necessary . . .

The commission conceded that the revocation or modification of the new carrier's certificate was seriously demanded but denied the veteran's request, stating:

> . . . we believe that such action would be unwarranted as unduly drastic and clearly not required by the facts in the case. Such action would merely accommodate conflicting interests without due regard to the interests of the Pennsylvania Sugar Company.

Public Utility Commission v. McGee (Application Docket No. 32343, Folder 3).

Carrier's Suburban Operation Permitted

A LOWER court decision prohibiting a motor carrier from continuing operation without first obtaining a certificate was reversed by the Texas Court of Civil Appeals.

The carrier contended that it operated entirely within a municipality and its suburbs and, therefore, was privileged under a statute exempting such operators from the burden of obtaining a certificate. The lower court had ruled that the operation went beyond the city and prohibited the carrier from operating along certain highways regardless of whether they passed through the city suburbs.

The court of civil appeals stated:

> If the term "city limits" has any other meaning than corporate boundaries of the city, then the injunction as granted is too indefinite and uncertain to be enforced. Appellants at their peril must determine for themselves where the city limits are located.

Holguin et al. v. Villalobos, 212 SW2d 498.

Telephone Company May Discontinue Service Violating Filed Tariff

THE supreme court of Ohio held that a telephone company has the duty to discontinue service which it has been furnishing to a subscriber in violation of its filed tariff. The fact that the company has been rendering that service for many years does not preclude discontinuance, the court said.

The party who complained against the company's tariff owned and operated an office building. He furnished telephone service to tenants through a central switchboard operated with lines to each tenant and with extensions and listings as requested and needed. This service was furnished for about eighteen years with all charges paid by the landlord, except the exact charges for long-distance calls, which he collected from tenants.

The tariff provided that exchange service would be furnished for the exclusive use of subscribers, their representatives, employees, and members of their immediate family. It defined a joint user as a person, firm, or corporation whose use of a subscriber's service was not contemplated under the terms of the subscriber's contract, but who, subject to the consent of the subscriber and the rules in the general tariff, was privileged to use the subscriber's service.

Each joint user was allowed one listing in the telephone directory without charge. The tariff provided that the joint user must be located on the subscriber's premises and in the same office or suite of offices as the subscriber, or in an office immediately adjacent to and connected therewith.

It also provided that not more than four joint users were allowed in connection with individual or party-line flat-rate service, or for each flat-rate private branch exchange trunk line.

In this case there were 30 trunk lines, 139 main stations, and 28 extension telephones. The landlord asserted that the tariff, in placing a limit on all joint-user service, was an unjust and unreasonable restriction. The court said:

> The tariff with respect to joint-user service showed that it was a special type of service furnished to provide for situations where a subscriber having more space than was needed for his own use rented part of that space to another person.
>
> It is clear to the writer of this opinion that such joint-user service was never intended to be available for use as a telephone service for a general office building with one subscriber furnishing telephone service to all the tenants of such building, and, in the opinion of this court, the service rendered by the telephone company to complainant was in violation of the tariff provisions on file with the commission during the period of time under discussion in this case.

Building Industries Exhibit, Inc. v. Public Utilities Commission, 80 NE2d 836.

Other Important Rulings

A CONTRACT motor carrier association's petition to intervene in a proceeding involving the cancellation of a supplement to a member's certificate was denied by the Indiana commission on the ground that its contention that the proceeding affected the entire contract carrier industry in the state and did not set grounds for intervention. *Re Commercial Motor Freight, Inc. et al. (No. 19714).*

The Michigan commission held that its power to grant immediate and temporary relief pending a hearing on a complaint of discrimination in gas service should not be exercised except upon a showing of an extreme emergency from which irreparable loss and damage would result if such relief were not granted. *Re Michigan Consolidated Gas Co. (D-3000-48.2).*

Titles and Index

Preprints in This Issue of Cases to Appear in
PUBLIC UTILITIES REPORTS

TITLES

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Public Utilities Reports (New Series) are published in five bound volumes annually, with an Annual Digest. These Reports contain the cases preprinted in the issues of PUBLIC UTILITIES FORTNIGHTLY, as well as additional cases and digests of cases. The volumes are $7.50 each; the Annual Digest $6.00. *Public Utilities Reports* also will subsequently contain in full or abstract form cases referred to in the foregoing pages of "Progress of Regulation."

OHIO PUBLIC UTILITIES COMMISSION

The Cincinnati Gas & Electric Company

v.

City of Cincinnati

Nos. 12,694, 13,277
September 2, 1948

COMPLAINTS *and appeals by utility company from ordinances regulating rates for electricity; ordinance rates found to be inadequate and new rate schedules substituted.*

Apportionment, § 54 — Power pool facilities — Demand basis.

1. The ratio of the firm service demand of users of electric service within a city to the maximum firm service demand of the system was held to be the most equitable basis for allocation of power pool facilities of an electric company serving the city and other areas, p. 103.

Apportionment, § 54 — Power pool property — Demand basis — Load treated as firm service.

2. The load of a power company customer should be treated as firm service in the determination of an electric system's maximum firm service demands, for the purpose of allocations of power pool property, when substantial service is furnished to that customer of such constancy as to distinguish this service from what could be designated as emergency service, p. 103.

Apportionment, § 54 — Power pool property — Demand basis — Temporary and emergency loads.

3. An equitable treatment of temporary and emergency loads in an allocation of power pool property requires that revenues from such service be proportionately allocated to the benefit of all users of firm service when these demands are nonrecurring and the company is not obligated to furnish such service in the event that its rendition would impair the service to firm power customers, p. 103.

Valuation, § 307 — Working capital — Electric utility.

4. Working capital of an electric utility was determined to be an amount equal to one-eighth of electric department expenses exclusive of purchased and interchanged power, depreciation, and taxes; one twenty-fourth of total for purchased and interchanged power; and an average month's balance of material and supplies, exclusive of coal, together with an allowance for the cost of an additional seventy-five days of coal burned in the year under consideration, p. 105.

Revenues, § 5 — Electric utility — Temporary and emergency service.

5. Revenues received for furnishing temporary and emergency service, proportionately allocated to service within a city where electric rates were under consideration, were included for rate-making purposes where revenues from temporary and emergency loads had been proportionately allocated to the

benefit of all users of firm service in determining an allocation of power pool property and related operating expenses, the result being the same as to use the revenues from the temporary and emergency service as a credit to cost of firm service, p. 106.

Expenses, § 48 — Dues.

6. Dues were included in operating expenses where not of sufficient magnitude to affect the results appreciably in a rate case, p. 107.

Expenses, § 46 — Donations.

7. Donations were included in operating expenses where not of sufficient magnitude to affect the results appreciably in a rate case, p. 107.

Expenses, § 45 — Directors' fees.

8. Directors' fees are properly chargeable to operating expenses and included in cost of service, p. 107.

Expenses, § 54 — Stock and bond transfers.

9. Expense of stock and bond transfers is properly chargeable to operating expenses and included in cost of service, p. 107.

Expenses, § 26 — Advertising — Presentation of rate case.

10. Advertising expenses incurred by a utility company in presenting its case in the newspapers while the question of rates is still a matter of negotiation with city authorities should be included in cost of service, p. 107.

Expenses, § 89 — Engineering reports — Rate proceedings.

11. Amounts paid for the preparation of engineering reports submitted to a city council during rate ordinance negotiations and later presented in evidence on appeal from the ordinance to the Commission should be included in cost of service, p. 107.

Expenses, § 89 — Rate negotiations — Extraterritorial matters.

12. Expenses and payments incurred in negotiations with another municipality should be excluded from cost of service in a proceeding before the Commission on appeal from a rate ordinance, p. 107.

Expenses, § 91 — Regulatory Commission expense.

13. Inclusion or exclusion of rate case expense is contingent upon conclusions arrived at as to justification for an appeal to the Commission from a rate ordinance, p. 107.

Apportionment, § 9 — Sales promotion expense.

14. Sales promotion expense of an electric utility should be allocated on a customer basis instead of an energy basis, p. 108.

Depreciation, § 29 — Annual allowance — Experience as guide.

15. The best basis for determining the reasonableness or excesses in depreciation accruals is the actual experience of a company, p. 108.

Rates, § 120 — Reasonableness — Purpose of regulation.

16. The ultimate object of regulation is to provide service at a price which is reasonable in the light of all the relevant facts and a compensation that is just when related to the value of the property employed, the risks of loss involved, the quality of management, and the inducement to continue improvement, p. 109.

Return, § 27 — Surplus over interest and dividend requirements — Attraction of capital.

17. A utility company must earn enough to accumulate some surplus over and above the amount required to pay interest and dividend requirements on securities if it is to preserve credit, attract capital, and render high quality service, p. 109.

Return, § 7 — Relation to capitalization — Disregard of value.

18. The fair rate of return of an electric utility should not be arrived at by taking the present capitalization, determining bond interest and preferred stock dividend requirements, and then adding a return on common stock equity, thereby nullifying any finding of value made in accordance with legislative mandates, p. 110.

Return, § 9 — Fair value basis.

19. Findings on cost of electric utility service should include a fair return on the fair value of the property dedicated to the furnishing of service, p. 110.

Return, § 87 — Electric utility.

20. A fair rate of return for an electric utility was held to be 6 per cent, p. 110.

By the COMMISSION:

History of Case

This is an appeal from Ordinance No. 288-1944 enacted by the council of the city of Cincinnati, Ohio, under date of September 20, 1944, for the period from October 29, 1944, to October 29, 1946, and from Ordinance No. 365-1946 enacted by the council of the city of Cincinnati September 26, 1946, for the period from October 29, 1946, to October 29, 1948.

On October 20, 1944, the Cincinnati Gas & Electric Company filed its appeal herein and elected to charge rates under schedules in effect prior to the effective date of Ordinance No. 288-1944, and filed an undertaking with this Commission conditioned as provided in § 614-45 of the General Code of Ohio.

Under date of October 20, 1944, bond and undertaking was filed in the sum of $2,260,000 and the same day a Commission order was issued approving such bond and undertaking and requiring the Cincinnati Gas & Electric Company to deposit from time to time moneys from cash on hand to a special fund in escrow with the First National Bank of Cincinnati, The Fifth-Third Union Trust Company, and The Central Trust Company, all of Cincinnati, Ohio, said banks to make quarterly statements to this Commission. Also under date of October 20, 1944, a copy of the appeal and entry fixing the amount of the undertaking was served on the mayor of Cincinnati.

Bank statements were received in accordance with the provisions in the Commission's order.

Under date of October 23, 1946, the Cincinnati Gas & Electric Company filed its appeal herein from Ordinance No. 365-1946 enacted by the council of the city of Cincinnati under date of September 26, 1946. The Cincinnati Gas & Electric Company elected to charge rates under the schedules in effect prior to the effective date of Or-

dinance No. 288-1944 and filed an undertaking with this Commission conditioned as provided in § 614-45 of the General Code of Ohio.

On October 23, 1946, bond and undertaking in the sum of $2,400,000 was filed and on the same date an order was issued approving said bond. This order further provided the Cincinnati Gas & Electric Company to deposit moneys from cash on hand in a special fund in banks as aforesaid described.

Under date of July 28, 1947, pursuant to an agreed entry the Commission adopted an order consolidating Formal Case No. 12,694 and Formal Case No. 13,277 and fixed a date certain for the two cases as follows:

Formal Case No. 12,694, appeal from Ordinance No. 288-1944, date certain to be October 29, 1944; and Formal Case No. 13,277, appeal from Ordinance No. 365-1946, date certain to be October 29, 1946.

Under date of October 2, 1947, an entry was issued scheduling hearing of the aforesaid consolidated cases for October 14, 1947.

Under date of October 9, 1947, pursuant to stipulation by and between the parties concerned, the Commission vacated the hearing for October 14, 1947, and reassigned the same for December 1, 1947, at 9:30 A. M. By agreement this was later continued to 2 P. M. of the same day.

Under date of October 31, 1947, and November 18, 1947, 105 volumes of exhibits were filed in connection with the aforesaid cases.

Hereinafter the Cincinnati Gas & Electric Company will be designated as the company and the city of Cincinnati as the city.

Under dates of December 1, 1947, December 2, 1947, December 3, 1947, December 4, 1947, January 12, 1948, January 13, 1948, and January 14, 1948, the company presented a trended inventory of its property. The city proposed to submit a priced inventory and requested postponement until September 1, 1948. The hearing reconvened February 16, 1948, for the purpose of discussing what progress the city had made in its studies and if possible be able to present its case at an earlier date since the 1946 ordinance was nearing the termination of its 2-year period.

Under date of February 16, 1948, the city stated it would be ready to present its case as far as revenues and expenses were concerned. City witness Blundon stated that reproduction cost new depreciated of the company's property would be more than the original book cost undepreciated. From the results of the hearing February 16, 1948, the following agreed stipulation was accepted by both the company and the city under date of April 5, 1948:

"Before the Public Utilities Commission of Ohio. In re: Appeals of the Cincinnati Gas & Electric Company from Ordinances Nos. 288-1944 and 365-1946.

"Agreed Stipulation Nos. 12,694 and 13,277.

"Whereas the Public Utilities Commission of Ohio has inquired of the city of Cincinnati and the Cincinnati Gas & Electric Company if certain stipulations could not be agreed upon with respect to certain factors necessary to be determined by the Commission in the adjudication of the above-

numbered appeals from Ordinances Numbered 288-1944 and 365-1946; and

"Whereas said parties upon request have informally considered such matters with the Commission:

"Whereupon the Commission hereby submits to the parties hereto the following stipulation, to wit:

"Agreed Stipulation

"It is hereby stipulated and agreed by the city of Cincinnati and the Cincinnati Gas & Electric Company, for the purposes of expediting the adjudication of the appeals of said company from City Ordinances Numbers 288-1944 and 365-1946, and only and specifically for such purposes, as follows:

"Rate Base

"The Public Utilities Commission of Ohio shall use as rate bases for the dates certain of October 29, 1944, and October 29, 1946, the undepreciated and unallocated book costs of the company, and in addition thereto with respect to a determination of rates to be charged from and after the final order prescribing rates for the future the Commission shall determine and use the book cost of all additions of property which have been made and which will be used and useful as of October 29, 1948. A hearing shall be commenced by the Commission on Monday, May 10, 1948, for the purpose of making a determination of the cost of such additions and the decisions of the Commission with respect to such matter shall be conclusive and binding upon the parties hereto.

"Operating Expenses

"In the determination of rates to be charged from and after the final order herein prescribing rates for the future the Commission shall make adjustments in the allowance for operating expenses to reflect as nearly as the same can be ascertained what such costs will be during the period for which such rates may be prescribed. A hearing shall be commenced by the Commission on Monday, May 10, 1948, for the purpose of making a determination of such costs and the decision of the Commission with respect to such matter shall be conclusive and binding upon the parties hereto.

"General

"It is further stipulated and agreed:

"1. That upon the hearings hereinbefore referred to each of the parties shall be entitled to offer evidence, to cross examine witnesses and to be heard upon the subject matter involved;

"2. That upon all matters not herein specifically agreed upon, and upon which findings must be made in the adjudication of these appeals, there is no agreement made or intended; among such disputed and unagreed upon facts are working capital requirements, allocations, revenues and expenses, and rate of return;

"3. That the rights of the city and the company, or either of them, shall not in any wise be prejudiced by this stipulation, in any future rate negotiations between the parties, or in rate proceedings before the Public Utilities Commission of Ohio, and that except for the purposes herein specifically agreed upon the city does not admit the validity of the company's book cost figures.

"The foregoing stipulation is hereby

agreed to and consent is hereby given by the acceptance noted hereon to the incorporation thereof in the record of the proceedings in the above numbered causes and appeals.

"Accepted 5 April, 1948. The City of Cincinnati by Robert J. White, Assistant Solicitor.

"Accepted 5 April, 1948. The Cincinnati Gas & Electric Company by Wm. H. Zimmer, Vice President & Treasurer.

"Have seen and approved: Floyd C. Williams, Counsel, Cincinnati Gas & Electric Company."

Hearing was resumed May 10, 1948.

Rate Base

The aforesaid stipulation provides: " . . . a hearing shall be commenced by the Commission on Monday, May 10, 1948, for the purpose of making a determination of the cost of such additions and the decision of the Commission with respect to such matter shall be conclusive and binding upon the parties hereto."

The company presented exhibits and two witnesses representing the manufacturers furnishing boilers and generators. Witness James D. Andrew, Jr., representing Babcock & Wilcox Company, manufacturer of high pressure boilers and steam equipment. Boilers to be installed were identified as No. 6-1, No. 6-2 and No. 6-3.

Witness Andrew testified, "All material necessary to assemble the boilers so that they may operate is on the job site. It is only miscellaneous minor equipment that is lacking in that so-called 5 per cent. About 75 per cent of the entire contract is assembled as of this date. Completion of assembly, ready for operation, will be on or sometime before September 1, 1948."

Company witness Robert J. Weber, representing the Westinghouse Electric Co., testified that the Westinghouse Electric Company has a contract dated July 5, 1946, to furnish the turbo-generator which had been under his supervision and shipping commitment at that time was dated April 1, 1948. Witness Weber testified, "The turbine will go into commercial operation producing energy September 1, 1948. The only other additions that the company had included in their additions were budget estimates which could not be specifically identified. However, such estimated expenditures are necessary for capital expenditures of this nature and appear to be conservative."

Counsel for city stated:

"We have no fault to find with a large part of the production and transmission program as far as the capital expenditures and the date of completion is concerned. We insist, however, that these large expenditures, approximately $12,000,000—now, that is $12,000,000 before allocation to the city of Cincinnati, that is, the gross amount, would not be made unless the company were to benefit very materially thereby."

City witness Blundon testified that Reconstruction Cost New Less Depreciation would be more than the book cost undepreciated. The additions subsequent to March 31, 1948, and to October 29, 1948, would represent actual cost or estimated actual cost which would in no event exceed present reproduction costs with the trend of prices during the above period.

Thus the Commission must determine the reasonableness of the estimated cost of additions to the company's plant, to arrive at the rate base. Counsel for city apparently thinks the estimated costs as a whole are reasonable as he stated as quoted above: "We have no fault to find with a large part of the production and transmission program as far as capital expenditures and the date of completion is concerned."

Counsel for city in his brief, p. 4, states:

"Rate Base

"As above stated, in view of the stipulations between the parties hereto, the question of property valuation has been fixed and determined; therefore, in arriving at a rate base valuation, only questions of allocation are to be considered by the Commission. The basic figures, showing the unallocated, undepreciated book cost of the property comprising the electric plant of the Cincinnati Gas & Electric Company, are found on page 1 of Company Exhibits 100 and 101, and are in the amounts of $93,968,060 as of the date certain October 29, 1944, and $95,520,745 as of the date certain October 29, 1946."

The city did not present an exhibit showing estimated additions to plant which will be in service as of October 29, 1948.

Power Pool Allocation

[1-3] All differences between city and company in the determination of the proportion of system property used in the furnishing of service to customers within the city of Cincinnati arise in the allocation of what has been designated the power pool property, which consists of the entire production and transmission system, together with a proportionate part of the general and common property.

In arriving at the percentage of the power pool property dedicated to the furnishing of service within the city of Cincinnati, the company used as the basis of apportionment the ratio of the average of the daytime firm service demand and the evening firm service demand within the city of Cincinnati to the average of the system highest daytime firm service demand and highest evening firm service demand, the respective demands being determined concurrently.

The city used as the basis for apportionment the ratios of the demand within the city of Cincinnati to the highest system demand. In its calculations the city included in the respective demands all firm service requirements plus the demands of temporary short term contract wholesale customers and the demands of emergency loads.

The method used by the company excluded all demands of the Dayton Power and Light Company. A review of the exhibits submitted discloses that during the years under consideration substantial service was furnished to the Dayton Power and Light Company of such constancy as to distinguish such service from what could be designated as emergency service. The company, furthermore, excludes from revenues any amounts received for the furnishing of emergency service.

An examination of the nature of the temporary service and emergency service loads included by the city in the determination of maximum de-

mand discloses that these demands were nonrecurring and that the company was not obligated to furnish such service in the event that the rendition of such service would impair the service to firm power customers. As an example of this the company in 1944 furnished to Indiana and Michigan Electric Company 46,000 kilowatts of capacity for a period of six days during which time the recipient company was making repairs to a turbine shut down because of a break in an oil line. The inclusion of this demand by the city resulted in the allocating to Indiana and Michigan Electric Company of 12½ per cent of the power pool facilities.

After careful consideration of the evidence submitted in the case, the Commission is of the opinion that the ratio of the firm service demand of the users of service within the city of Cincinnati to the maximum firm service demand of the system is the most equitable basis for allocation of the power pool facilities, and that the load of Dayton Power and Light Company should be treated as firm service in the determination of the system's maximum firm service demands for the respective periods considered herein. As regards the temporary and emergency loads it appears that an equitable treatment of these would require that the revenues from such service should be proportionately allocated to the benefit of all users of firm service.

Use of the method of allocation above set forth and herein adopted produces the following results:

YEAR 1944

Recipient	Kw. Demand December 7, 1944 5—6 P.M.	Per Cent of Total
Wholesale		
Union Light, Heat and Power Co.	27,500	8.00
Public Service of Indiana	15,000	4.36
Dayton Power and Light Co.	18,000	5.23
Retail		
Outside City of Cincinnati	125,850	36.58
Inside City of Cincinnati	157,659	45.83
	344,009	100.00

On the above basis of calculations for the year 1944 there will be allocated to service within the city of Cincinnati 45.83 per cent of the power pool property and related expenses allocable on a demand basis.

YEAR 1946

Recipient	Kw. Demand December 10, 1946 10—11 A.M.	Per Cent of Total
Wholesale		
Union Light, Heat & Power Co.	30,300	8.37
Public Service of Indiana	15,000	4.15
Dayton Power & Light Company	25,000	6.91
Retail		
Outside City of Cincinnati	121,902	33.71
Inside City of Cincinnati	169,492	46.86
	361,694	100.00

On the above basis for the year 1946 there will be allocated to service within the city of Cincinnati 46.86 per cent of the power pool facilities and related expenses allocable on a demand basis.

YEAR 1947

Recipient	Kw. Demand December 16, 1947 10—11 A.M.	Per Cent of Total
Wholesale		
Union Light, Heat & Power Co.	32,600	8.20
The Public Service Co. of Indiana	15,000	3.77
Dayton Power & Light Co.	25,000	6.29
Retail		
Outside City of Cincinnati	136,511	34.35
Inside City of Cincinnati	188,279	47.38
	397,390	100.00

On the above basis, for the year 1947, there will be allocated to service within the city of Cincinnati 47.38 per cent of the power pool facilities and related expenses allocable on a demand basis.

Working Capital

[4] The amounts included by city and company in the respective rate bases for working capital are as follows:

	Total Electric Department	Allocated to Cincinnati
City:		
1944	$2,694,336.00	$1,355,253.00
1946	2,908,527.00	1,598,454.00
Company:		
1944	$4,903,000.00	$2,510,000.00
1946	5,864,000.00	3,175,000.00

For the year 1944, the company based its estimate upon one-eighth of the year's total electric department expenses, exclusive of annual allowance for depreciation, taxes, and prepayments charged to electric department operating expenses, plus the cost of the average month-end inventory of materials and supplies on hand, plus the cost of the average month-end inventory of coal on hand at the generating plants, plus prepayments, and plus minimum bank balances.

For the year 1946 the company used the same method except that it adjusted the actual operating expenses to reflect wage increases and adjusted fuel costs to reflect consumption for one-eighth of the year at December, 1946, coal prices and included one-eighth of these adjusted operating expenses instead of one-eighth of the actual operating expenses for the year. The amount of the allowance for coal stocks included in working capital was arrived at by taking seventy-five days' supply of coal for the generating plants at 1947 year-end costs, instead of using the average month-end inventory as was done for the year 1944.

The amounts included for both 1944 and 1946 by the city for working capital include one-eighth of the total operating expenses of each test year, exclusive of annual allowance for depreciation and taxes, less cost of coal used in the generating plants and electricity purchased and interchanged, plus the cost of the average month-end inventory of materials and supplies on hand, exclusive of coal, and plus an estimated seventy-five days' supply of coal based upon the prevailing cost of coal to the company during the month of December for each of the test years.

After consideration of the exhibits,

evidence, and briefs submitted by city and company the Commission concludes that the reasonable requirements for working capital for the years 1944 and 1946 should include one-eighth of electric department expenses exclusive of purchased and interchanged power, depreciation and taxes, one twenty-fourth of total for purchased and interchanged power; an average month's balance of material and supplies, exclusive of coal, together with an allowance for the cost of an additional seventy-five days of coal burned in the respective year. For the 1948 rate base there will be allowed for working capital one-eighth of electric department expenses adjusted as per stipulation, exclusive of purchased and interchanged power, fuel, depreciation, and taxes, one twenty-fourth of total for purchased and interchanged power, an average month's balance of materials and supplies exclusive of coal, together with an allowance for the cost of an additional seventy-five days of coal burned. The allowances for working capital thus arrived at, allocated to service within the city of Cincinnati are as follows:

1944	$1,619,494.00
1946	1,952,446.00
1948	2,194,026.00

Operating Revenues

[5] The amount of revenues that will be provided by the rates prescribed by the ordinances herein complained of and appealed from and the amounts provided by the collected rates pending disposition of the appeals are not at issue in the case. Except for minor differences the city and company are in agreement as to these amounts. However, as above stated, consistent with the method of allocation of power pool property and related operating expenses allocable on a demand basis, there will be included in the revenues the amounts received for the furnishing of temporary and emergency service and of these amounts a proportion will be allocated to service within the city of Cincinnati, the result being the same as to use the revenues from the temporary and emergency service as a credit to cost of firm service. The amounts of these revenues for the respective years and the proportion thereof allocated to service within the city of Cincinnati are as follows:

YEAR 1944

	Total	Allocated to City
Indiana and Michigan Electric Co.	$291.67	$124.00
Louisville Gas & Electric Co.	169,807.55	72,423.00
	$170,099.22	$72,547.00

YEAR 1946

Louisville Gas & Electric Co.	$151,690.18	$75,329.34

Operating Expenses

Consistent with the evidence presented by both city and company, operating expenses for the year 1944 will be used in the determination of the reasonableness of the rates prescribed in Ordinance No. 288-1944 and operating expenses for the year 1946 will be used in the determination of the reasonableness of the rates prescribed in Ordinance No. 365-1946 from the effective date of said ordinance to date of this decision. As provided in the stipulations between the parties of in-

terest the rates from the effective date of this finding and order to the final effective date of the ordinance will be predicated upon the operating expenses of the company for the year 1947, adjusted as to fuel costs and wages to reflect the experience of the company from 1947 to date of this order.

[6–13] In its determination of the costs of service the city has excluded from operating expenses certain expenditures made by the company. These excluded items and the amounts of such expenditures are as follows:

	YEAR 1944	
Account 538	Donations	$22,580.36
Account 801	Miscellaneous General Expenses	
	Advertising	3,686.75
	Dues	8,504.67
	Other Miscellaneous	9,929.08
	Total	$44,700.16
	YEAR 1946	
Account 538	Donations	$21,305.87
Account 795	Special Services ...	6,500.00
Account 796	Legal Services (Batavia)	1,000.00
Account 801	Miscellaneous General Expenses	
	Dues	9,579.92
	Other Miscellaneous	
	Directors' Fees..	$3,498.60
	Stock and Bond Transfers	44,666.21
	Payments to Batavia	4,584.00
	Total	$91,134.00
	YEAR 1947	
Account 538	Donations	$17,559.96
Account 792	Expenses of General Officers	1,111.05
Account 797	Regulatory Commission Expenses ..	101,033.08
Account 801	Miscellaneous General Expenses	
	Association Dues .	9,699.38
	Association Subscriptions	1,563.70
	Other Miscellaneous	56,410.86
	Total	$187,378.03

In excluding these items it is the position of the city that any dues, donations, directors' fees, and the cost of stock and bond transfers should be paid for by the stockholders and not passed on to the ratepayer. The advertising expenses excluded were incurred by the company in presenting its case in the newspapers while the question of rates was still a matter of negotiation with the council of the city of Cincinnati. The special services excluded were amounts paid to the engineering firm of Jensen, Bowen, and Farrell for the preparation of engineering reports submitted to council during negotiations and later presented in evidence in this case. The payments for legal services (Batavia) and subsequent payments to Batavia were made in connection with rate negotiations with that municipality. The regulatory Commission expenses incurred in the year 1947 were company costs of preparation and presentation of its appeal before this Commission.

The proportion of the items of dues and donations assignable to service within the city of Cincinnati are not of sufficient magnitude to appreciably affect the results herein arrived at. For the purposes of disposition of the issues herein these expenses will be included in the cost of service. As regards directors' fees paid and the expense of stock and bond transfers (included in Other Miscellaneous Company Account 3829-4) these items appear to be properly chargeable to operating expenses and will be included in the costs of service. The advertising and special service expenditures, being incurred during negotiations will be included in the costs of service. The expenses and payments incurred in negotiations with the municipality

of Batavia will be excluded. The inclusion or exclusion of the regulatory Commission expenses, being rate case expense, is contingent upon the conclusions herein arrived at as to justification for the appeal herein.

Allocation of Operating Expenses

[14] The methods used by the city and the company are the same with the exception of allocation of power pool expenses and sales promotion expense. The matter of allocation of power pool expenses and the method herein used has been presented in conjunction with the allocation of power pool property. The city has allocated sales promotion expense on the proportion of energy sales. The company has allocated these expenses on a customer basis. An examination of the methods used and the results produced suggests that the customer basis is more in harmony with the realities of operation than is the energy basis, and the customer basis of allocation will be used herein in arriving at the proportion of sales promotion expense assigned to the furnishing of service within the city of Cincinnati.

Annual Allowance for Depreciation

[15] The company has included in the cost of service an annual allowance for depreciation equivalent to the actual accruals by the company to its depreciation reserve for the respective years. These annual accruals were computed at 2.68 per cent of the book cost of depreciable electric property and 2.35 per cent of the book cost of depreciable common property. The city uses a round sum for each year. The amounts allowed by city and company are as follows:

Year	All Electric Property	Allocated to Cincinnati	
	Company	City	Company	City
1944	$2,465,889.31	$1,000,000.00	$1,397,918.00	$523,900.00
1946	2,487,060.35	1,000,000.00	1,421,106.00	545,800.00
1947	2,847,563.00	1,000,000.00	1,518,510.00	550,600.00

The city allows $1,000,000 per year and in its testimony and briefs points out that the current retirements of the company per year are less than this amount. It also points out the growth of the reserve for depreciation of the company under the current rates of accrual used herein. However, the city fails to give consideration to the growth in investment in property of the company brought about by demands for service during the war years and since. The more rapid the growth of a property, the smaller its retirements in relation to total property. As growth decelerates there will be a consequent acceleration in the ratio of retirements to total property. In determining the company's provisions for depreciation, which provisions are herein included as a part of the cost of service it would appear that the best basis for determining the reasonableness or excesses in the depreciation accruals would be the actual experience of the company. The provisions made during the years under consideration are consistent with those made in all years since the adoption by the company of the straight-line method of provision for depreciation. Taking into consideration the rate of growth of the company's investment in electric property, the accumulation for depre-

ciation to date does not appear to be in excess of reasonable requirements. In comparison with other electric utilities, having regard for rate of growth, type of generating facilities, and geographical location served, the present ratio of reserve to plant investment would indicate a sound but not excessive depreciation provision policy. In the determination of the costs of service herein the percentage rates used by the company will be applied to the respective classes of property in the rate base herein arrived at.

Rate Bases—Conclusion

Application of the decisions herein reached to the rate bases as set forth in stipulations of the city and company produce rate bases for the respective dates certain and are shown in detail in Tables 1, 2, and 3 which are hereby made a part of this finding and opinion. In summary, after allocation, we find that the rate bases for property dedicated to the furnishing of electric service within the city of Cincinnati, as of the respective dates certain, are as follows:

As of October 29, 1944	$53,156,520.00
As of October 29, 1946	$54,426,968.00
As of October 29, 1948	$61,613,944.00

Predicated upon the stipulations made by city and company as set forth herein the Commission finds the value of the property of the Cincinnati Gas & Electric Company dedicated to the furnishing of electric service within the city of Cincinnati as of the respective dates to be not less than the amounts above set forth.

Rate of Return

On June 25, 1947, the supreme court of Ohio, in Marietta v. Public Utilities Commission, 148 Ohio St 173, 71 PUR NS 186, 74 NE2d 74, held:

Headnote 1.

"The general assembly in delegating rate-making power to the Public Utilities Commission through §§ 499-8, 499-9 and 499-13, General Code, limited the Commission, in the valuation of physical utility property other than land for rate-making purposes, to the reproduction cost as of a date certain of such property as is used and useful for the convenience of the public, less observed depreciation thereon. (Lindsey v. Public Utilities Commission [1924] 111 Ohio St 6, PUR 1925A 465, 144 NE 729, and East Ohio Gas Co. v. Public Utilities Commission [1938] 133 Ohio St 212, 22 PUR NS 489, 12 NE2d 765, approved and followed).

Headnote 2.

"The Public Utilities Commission in determining a rate to be charged to consumers for gas furnished in a definite area by a public utility *must fix such rate in such amount as, in addition to reimbursement of the cost of production and distribution of such gas, will afford the utility a fair rate of return on the valuation of its physical property so found.*" (Italics supplied.)

[16, 17] The ultimate object of regulation is to provide service at a price which is reasonable in the light of all the relevant facts, and a compensation that is just when related to the value of the property employed, the risks of loss involved, the quality of management and the inducement to continue improvement.

Section 614-46 requires the Commission to fix a just and reasonable

rate "with due regard . . . to the necessity of making reservations from the income for surplus, depreciation and contingencies, and such other matters as may be proper, according to the facts in each case, . . ."

Thus, if a company is to preserve credit, attract capital, and render high quality service, it must earn enough to accumulate some surplus over and above the amount required to pay interest and dividend requirements on securities.

The company submitted the testimony of its witness, Dr. H. B. Dorau. The city submitted the testimony of its witness, Dr. Laurence S. Knappen.

Dr. Dorau testified: "On Schedule 85 I set forth the method by which I determined the weights which I used in determining a composite over-all cost of capital, and I have done it both ways here, not that I would give one bit of support to the nonsense of using capital structure weights, but I put it in here for the purposes of ready comparison to see how much difference it makes in this instance, and to afford a basis for pointing out that the use of bookkeeping balances is meaningless for these purposes, and that it may be inequitable and a hardship to the company at one time, and it can operate in the same way against the public and the customer at another time. "Thus, a company that had a bookkeeping statement which gave a high value to its equity, which was not supported on the market, would obviously be a ridiculous thing to use as a weight, and by the same token you can't use it when the reverse circumstance takes place. *Therefore, the only appropriate source of weights is the market evidence* (italics ours), and it might be pointed out, also, as a matter of procedural information that if one were to take the weight on the basis of a book or bookkeeping value that was substantially below the value placed on that equity in the market, we would then have to recalculate our cost for debt and preferred stock capital, because the people who bought the bonds bought them on the basis of that much equity protection as reflected by the valuation which the market placed on it, and the people who bought the preferred stock did similarly; consequently, if one wanted to use a balance sheet approach, we would have to recalculate and determine an imputable debt and imputable stock rate, both of which would be substantially higher, and you would get a different result, anyhow."

Dr. Knappen testified, "As I have frequently testified here before, I consider calculations based on market value of outstanding securities to be unsound."

Dr. Knappen's method of arriving at a fair rate of return is to take the present capitalization of the company, determine the bond interest and preferred stock dividend requirement and to this add a return of some determining per cent of the common stock, common stock equity and this gives a fair rate of return regardless of the size of the rate base.

Under this method the company would have a return as follows:

[18–20] Doctors Dorau and Knappen testified in cases numbered 12,603 and 13,158, which were consolidated for hearing, involving the city and company and decided by this Commission on May 25, 1948, 74 PUR NS 5.

	Return in Dollars Found Necessary by Dr. Knappen	Return
Year 1944		
City's rate base 50,660,490	1,913,930.00 (R. 1314)	3.8%
Company's rate base 55,887,884	1,913,930.00 (R. 1315)	3.5%
Rate base determined by Commission 53,156,520	1,913,930.00	3.6%
Year 1946		
City's rate base 53,698,293	1,918,046.00 (R. 1314)	3.7%
Company's rate base 55,784,168	1,918,046.00 (R. 1315)	3.5%
Rate base determined by Commission 54,426,968.00	1,918,046.00	3.52%

In the opinion in that case this Commission stated at p. 14:

"On the matter of a fair rate of return the company submitted the testimony of its witness, Dr. H. B. Dorau. The city submitted the testimony of its witness, Dr. Laurence S. Knappen. Between the two witnesses there was little difference of opinion as regards the cost of bond and preferred stock money in arriving at conclusions. Almost the sole issue between the two witnesses in regard to cost of money was in regard to the cost of common stock money. However, this difference of opinion was a minor factor in the conclusions arrived at by the respective witnesses. Dr. Dorau took the position that a fair rate of return determined should be applied to the rate base arrived at. Dr. Knappen took the present capitalization of the company, determined bond interest and preferred stocks dividend requirements and to this added a return of 8.75 per cent on the common stock equity. The sum of these amounts produced what Dr. Knappen termed a fair return in dollars. This was his testimony as to fair return regardless of the size of the rate base. To thus determine the amount that a utility may earn on the property used and useful in the furnishing of service makes any determination of value of property insignificant. The legislature of the state of Ohio has very specifically set forth the methods and principles upon which this Commission shall base its findings as to the reasonableness of rates of a utility. The statutes provide that there shall be a determination of the fair value of the property, which fair value shall be the cost of reproduction new less observed depreciation as of a date certain. To use the method advocated by the witness, Dr. Knappen, for the determination of return to the utility on the property dedicated to the service would nullify and make meaningless any finding of value made in accordance with the legislative mandate. In the determination of the issues herein this Commission will predicate its findings on costs of service which include a fair return on the fair value of the property dedicated to the furnishing of service."

We reassert the opinion therein expressed.

With due regard to the agreed stipulation, the facts and the evidence in this case, the Commission finds that a

fair rate of return on the rate bases used herein is 6 per cent.

Return under Ordinance Rates

Table No. 4-A, attached hereto [omitted herein] and made a part of this finding and opinion, shows the revenues and expenses for the year 1944 as set forth in City Exhibit No. 2 and as modified according to the findings herein. For the year 1944, the company collected for the period January 1, 1944, to October 29, 1944, the rates in effect just prior to the passage of Ordinance No. 288-1944 herein complained of and appealed from, and for the period October 30, 1944, to December 31, 1944, the revenues are included at the ordinance rates. City Exhibit No. 2 shows a return of 6.16 per cent on the rate base as of October 29, 1944, for this year. The right-hand column of Table No. 4-A [omitted herein] shows a return of 4.54 per cent on the rate base as of October 29, 1944, after adjustment of city and company claims in conformity with this finding and opinion. Table No. 5 [omitted herein] shows in detail the operating expenses and allocations thereof included in the costs of service.

Table No. 6-A [omitted herein] attached hereto and made a part of this finding and opinion, shows the revenues and expenses for the year 1946 as set forth in City Exhibit No. 3, wherein the revenues are included for the entire year at the ordinance rates. The left-hand column shows that after city allowances for costs of service, the rates provided by Ordinances No. 288-1944 and No. 365-1946 herein complained of and appealed from provided a return on the rate base of 4.5 per cent and after adjustment of rate base and costs of service in conformity with the allowances herein a return of 2.45 per cent.

Details of the operating expenses and determination of the proportion thereof assignable to service within the city of Cincinnati are set forth in Table 7, attached hereto and hereby made a part of this finding and opinion.

It therefore appears that the rates prescribed in Ordinances No. 288-1944 and No. 365-1946, are insufficient to provide to appellant, the Cincinnati Gas and Electric Company, a fair return on the property dedicated to the furnishing of electric service within the city of Cincinnati. In conformity with the provisions of § 614-45 of the General Code of Ohio, it is therefore incumbent upon this Commission to set aside and hold for naught the rates and charges specified in said Ordinances No. 288-1944 and No. 365-1946 herein complained of and appealed from and to substitute therefor rates which will yield to appellant herein, the Cincinnati Gas and Electric Company, adequate return on the rate bases herein determined based upon the stipulations of the interested parties.

Table 4 attached hereto and hereby made a part of this finding and opinion shows that for the year 1944, after deduction of the costs of service herein determined the rates actually collected by appellant herein, the Cincinnati Gas and Electric Company, pending determination of the issues herein, which rates were the rates in effect just prior to passage of Ordinance No. 288-1944, herein complained of and appealed from, the rates actually col-

lected provided to appellant herein a return of 4.71 per cent on the rate base as of October 29, 1944, herein determined. As shown in the left-hand column, the company claimed in its Exhibit 103 a return of but 4.57 per cent on the rates actually collected after giving effect to the revenues and costs of service included by appellant.

Table 6 attached hereto [omitted herein] and hereby made a part of this finding and opinion shows that for the year 1946, after deduction of the costs of service herein determined the rates actually collected by appellant herein, the Cincinnati Gas and Electric Company, pending determination of the issues herein, provided a return of 5.35 per cent on the rate base of $54,426,968 herein determined as of October 29, 1946.

Table No. 8-A appended hereto [omitted herein] and hereby made a part of this finding and opinion shows that on the basis of the city's cost of service for the year 1947 the ordinance rates provided for that year a return of 3.33 per cent on the rate base of $61,613,944 as of October 29, 1948, as herein determined and after adjustment to reflect additional revenues and certain adjustments in expenses as set forth therein, the ordinance rates provided for the year 1947 a return of .97 per cent on the rate base as of October 29, 1948. In modifying the expenses there is included additional rent from electric property. Company witness Fields testified that upon acquisition of certain transmission facilities the company would receive additional revenues of $18,000 annually from the Ohio Power Company. As of this date the company has acquired these facilities. The additional rent is therefore reflected in the revenues in the right-hand column of Table 8 [omitted herein]. Table 9 [omitted herein] shows the details of costs of service included for the year 1947, which reflects adjustment in the amount of $500,568.60 in Account No. 703, Fuel Costs, made in accordance with the testimony of company witness Fields.

It therefore appears that the rates presently collected under bond, which rates were the rates in effect just prior to passage of Ordinances Nos. 288-1944 and 365-1946 herein complained of and appealed from are insufficient to provide to appellant herein, the Cincinnati Gas and Electric Company, a fair return on the rate bases herein determined.

The Commission is therefore substituting for the rates prescribed in said Ordinance Nos. 288-1944 and 365-1946 the following rates, which rates shall be charged and collected for the remainder of the period provided in Ordinance No. 365-1946, viz: [Rate schedules omitted.]

Table 10 [omitted herein], hereto attached and hereby made a part of this finding and opinion [omitted herein] shows that the rates above prescribed will provide additional revenues of $2,489,640 per year above the rates hereto collected pending determination of the issues herein. Operating expenses give effect to a saving of $35,000 per year which company witness Keagy testified that the company would save with the substitution of a block rate for an active room rate. Table 10 [omitted herein], shows that the rates herein sub-

stituted for the rates prescribed by Ordinance No. 365-1946 will provide to appellant the Cincinnati Gas & Electric Company a return of 5.996 per cent on the rate base of $61,613,944 as of October 29, 1948, herein determined.

An order in conformity with the above finding and opinion will issue accordingly.

CONNECTICUT PUBLIC UTILITIES COMMISSION

Re Derby Gas & Electric Company

Docket No. 8050
June 7, 1948

APPLICATION *for authority to increase gas rates; increase granted.*

Rates, § 199 — Classes of customers — Cost of service.

1. Each class of customers of a gas utility should bear its full investment and expense responsibility, p. 119.

Discrimination, § 81 — Rates — Gas service to affiliate.

2. Rates for gas supplied by a gas manufacturing company to an affiliate, under contract between the two companies, must be compensatory and should include in the monthly charge the other company's responsibility for an investment in the gas-making plant designed to take care of the needs of both companies, since otherwise a burden or a form of discrimination may inadvertently be placed upon the other customers of the supply company, p. 119.

Rates, § 386 — Gas rates — Industrial customers.

3. Gas rates which a company charges its industrial customers should be above cost and compensatory, although it is recognized that the average sale price of gas to industrial customers in large blocks of consumption is necessarily closer to production cost than prices to other classes of customers, p. 122.

Revenues, § 5 — Gas company — Forfeited discounts.

4. The Commission will consider forfeited discounts as a source of revenue to a gas company, in determining its revenues for rate-making purposes, p. 123.

Revenues, § 12 — Gas company — Profit on merchandising and jobbing.

5. The Commission will consider the profit on merchandising and jobbing as a source of revenue to a gas company, in determining its revenues for rate-making purposes, p. 123.

Expenses, § 114 — Income tax — Consolidated companies.

6. The Commission, in determining reasonable allowances for a gas company's operating expenses, estimated its Federal income taxes on a consolidated basis where the company and its affiliates calculated the tax on the basis of a consolidated tax return, p. 123.

Return, § 83 — Combined utilities — Gas utility.

7. Gas rates affording a gas, electric, and steam company a return of 3.5 per cent upon the gross cost of the company's gas property, plus an allowance for working capital, materials, and supplies, and a return of 3.63 per cent after deduction of accrued depreciation were deemed adequate where the operating income of the entire company afforded a return of about 5 per cent on the combined fixed capital, working capital, materials, and supplies for the three departments and a return of 6.4 per cent after deduction of accrued depreciation, p. 123.

By the COMMISSION: The Derby Gas and Electric Company of Derby, Connecticut, which supplies electric, gas, and steam service in the towns of Ansonia, Derby, and Shelton, filed with the Commission on January 5, 1948, three new gas rates to take the place of four existing gas rates. These new rates classified as domestic, commercial, and industrial not only effected a change in customer classification but also effected a substantial increase over the present cost of gas to these three classes of customers. As a reason for the proposed changes in its rates, the company stated in its petition, accompanying the filing of these new rates, that the present gas rates have been in force for many years and that, with no inclusion in its gas rates of a fuel adjustment clause, gas service is being presently supplied at a loss. The company did not propose in its original petition to adopt a fuel adjustment clause. The estimated increase in revenues from these rates, filed on January 5, 1948, was stated by the company as approximately $96,000 on an annual basis.

On January 26, 1948, the company filed with the Commission a revised petition for a change and increase in its present rates, submitting therewith new and amended rates, domestic, commercial, and industrial, to take the place of those filed on January 5, 1948, said rates to become effective March 1, 1948. These rates filed on January 26, 1948, revised upward the rates filed on January 5, 1948, namely, to increase the additional revenues from $96,000 annually to $173,985 annually, based upon the volume of sales of gas in 1946. The reason for increasing the rates was the company's claim of an increased cost of the manufacture of gas taking place during the last few months preceding the filing of the revised rates and that these revised rates were based on studies that had begun many months before. The company, at the same time, incorporated in its new rates a fuel adjustment clause designed to reimburse the company for any increases in the cost of gas-making fuels which might take place in the future and at the same time give customers the benefit of any reduction in the cost of these fuels that might take place in the future. The hearing is thus upon the revised petition and the rates accompanying it. Further details respecting the changes in gas rates are set forth in the finding below.

By its order of suspension and notice of hearing dated February 4, 1948, the Commission, pursuant to statute, suspended the proposed changes in the company's gas rates, pending a hearing and finding by the Commission, and ordered an inquiry into the need and reasonableness of the

proposed increase in the gas rates of the company, assigning for that purpose a hearing to be held at its office, room 585, State Office building, 165 Capitol avenue, Hartford, Connecticut, on February 18, 1948, beginning at 10:30 A. M. Due notice of the hearing was given to the Derby Gas and Electric Company, to the city and town of Ansonia, the city and town of Derby, the city and town of Shelton, and to other interested parties, as fully appears from Commission's order of notice and return of its secretary thereon, on file. Public notice was also given by advertisement in the Ansonia Sentinel and the New Haven Register. At said time and place the following appearances were made: The Derby Gas and Electric Company appeared by its President and Secretary in support of its application. The city of Derby appeared by Counsel and its State Representative. The city of Ansonia appeared by its Corporation Counsel and two State Representatives. The Textile Workers Union of America, International Union of Mine, Mill & Smelter Workers, Local 445, of Ansonia, Ansonia Brass Workers Union, Local 445, C.I.O., United Steel Workers, Local 3571 and Textile Workers Union of America, Local 413, appeared by representatives. The hearing was continued to February 19 and 20, 1948, when it was adjourned until March 16, 1948, and concluded on that day. Due notice of the adjourned hearing was given to the interested parties and at said time and place the same appearances were made as at the original hearing. At the close of the hearing on March 16th, the Ansonia Brass Workers Union, Local 445, of the International Union of Mine, Mill, and Smelter Workers, through its representative, filed a written statement in objection to the proposed gas rate increase and the reasons for the objection.

It might be stated at the outset, inasmuch as reference to it was made at the hearing, that the Derby Gas and Electric Company is a corporation organized and existing under the laws of Connecticut distributing electricity, gas, and steam in the towns of Ansonia, Derby, and Shelton, as stated above. All of its stock is owned or controlled by Derby Gas & Electric Corporation, a Delaware corporation, which corporation also owns or controls the stock of the Wallingford Gas Light Company, the Danbury and Bethel Gas and Electric Light Company, and the Derby Gas and Electric Corporation of Connecticut, a nonoperating company organized under the laws of Connecticut.

In considering the petition for rate relief of the Derby Gas and Electric Company, it would be helpful to refer to the pipe line connecting that company with the Danbury and Bethel Gas and Electric Light Company, two affiliated companies. The Danbury and Bethel Gas and Electric Light Company distributes gas and electricity in the city of Danbury and town of Bethel. It distributes electricity also in the towns of Brookfield, Newtown, Ridgefield, Redding, and Southbury. It also has pending before the Commission a petition for rate relief in its gas department (Commission's Docket No. 8062).

Until recent date the Derby Gas and Electric Company and the Danbury and Bethel Gas and Electric Light

Company manufactured gas for distribution within their respective areas. In 1946 the Derby Gas and Electric Company commenced the construction of a modern plant for the manufacture of gas by the water gas process in Shelton. This plant was designed with sufficient capacity to serve not only the present needs of Ansonia, Derby, and Shelton and its estimated needs for some time in the future, but also to supply the needs of the area served by the Danbury and Bethel Company. This water gas plant has been completed and is now in operation. It has a maximum capacity of 5,000,000 cubic feet of gas per day. Gas from Shelton is delivered into a holder of the Danbury and Bethel Company in Danbury by means of a pipe line connecting the two companies in the two areas. The additional investment in a gas plant of sufficient capacity to take care of the needs of both companies represents a relatively small additional cost in comparison with the cost of a plant designed to take care of the needs of the Derby Gas and Electric Company alone. The Danbury and Bethel Company has been thus able to scrap its outmoded coal gas-making plant. The new gas-making plant in Shelton cost approximately $850,000. That part of the pipe line, together with the necessary pumping and regulating equipment located within the chartered territory of the Derby Gas and Electric Company, was constructed at an additional cost of about $211,000 making a total plant investment for the Derby company in excess of $1,000,000. This construction work, as well as the cost of constructing that part of the pipe line and new gas holder within the chartered territory of the Danbury and Bethel Company, about $725,000 in cost, was financed by the Derby Gas & Electric Corporation, a Delaware corporation, controlling the two operating companies stated. It appears that the construction of this new gas-making plant results in a lower production cost for gas than if either company were to construct a plant designed to serve its own needs alone. At the same time, the cost of gas to the Danbury and Bethel Company under a contract between it and the Derby Gas and Electric Company is less than the cost of making gas in its outmoded coal gas plant. We refer below in detail to this contract between the two operating companies.

The Derby Gas and Electric Company distributes gas to about 9,854 customers of which 9,163 are in the domestic class, which is also called the residential class, 624 customers belong to the commercial class and 67 customers are in the industrial class, and to the Danbury and Bethel Gas and Electric Light Company. Sales to that company began September 1, 1947. The total operating revenues in the gas department for the year 1947 amounted to $525,589 divided as follows:

Domestic Customers	$316,561
Commercial Customers	66,305
Industrial Customers	62,208
Danbury and Bethel Gas and Electric Light Company	74,791
Other Gas Revenues	5,724
Total	$525,589

The revenues which these several classes of customers and the Danbury and Bethel Company would produce under the proposed rates, using as a basis the volume of sales in the year

1947, were estimated by the company as follows:

Domestic Customers (An increase of $130,000 or a 41% increase)	$446,561
Commercial Customers (An increase of $23,800 or a 36% increase)	90,105
Industrial Customers (An increase of $32,200 or a 52% increase)	94,408
The Danbury and Bethel Gas and Electric Light Company	237,000
Total	$868,074

These increases are without giving any effect to the proposed fuel adjustment clause. A substantial part of the increase is in the residential class of customers represented by a proposed increase in the initial block of gas, in which block it is proposed to charge $1.50 for the first 200 cubic feet of gas as compared with the present charge of one dollar for the first 300 cubic feet of gas. This change will have the effect of establishing a minimum charge of $1.50 per month in the place of the present minimum charge of one dollar per month. The revenues from sales to the Danbury and Bethel Company were based upon estimated sales of 324,202 thousand cubic feet in the year 1948 although this estimate was increased materially after the hearing and submitted to the Commission, as will be discussed below under the subject of the contract between the Derby Gas and Electric Company and the Danbury and Bethel Gas and Electric Company.

In support of the additional revenues requested, the company estimated its operating expenses and provision for depreciation and taxes as follows:

Cost of Gas	$526,000
Transmission Expense	6,000
Distribution Expense	60,000
Customers Accounting	23,000
Sales Promotion	10,000
Administration and General Expense	30,000
General Maintenance	3,000
	$658,000
Provision for Depreciation	$52,000
Taxes, Except Federal Income Taxes	42,000
Income Taxes (Estimated on a Consolidated Basis)	27,000
Total Expenses Including Depreciation and Taxes	$779,000

The several affiliated corporations, referred to near the outset, including the Derby Gas and Electric Company, file Federal income tax returns on a consolidated basis. The estimated taxes above were submitted by the company on that basis. In the estimate of Federal income taxes which the Commission will make, in determining reasonable allowances for operating expenses, depreciation and taxes below, the consolidated basis will be used.

The company claimed that the proposed rates, after giving effect to its estimated operating expenses, depreciation and taxes, as set forth above, are designed to yield the company 3.59 per cent on the gross cost of the company's gas property plus an allowance for working capital, materials, and supplies, in all approximately $2,550,000, determined as follows:

Fixed Capital (as of December 31, 1947)	$2,455,354
Less Estimated Retirements in 1948	200,000
	$2,255,354
Estimated Capital Additions—1948	152,000
Cash	70,000
Materials and Supplies	75,000
Total at the end of 1948	$2,550,354

The combined fixed capital, working capital, materials, and supplies for the three departments, electric, gas, and steam, submitted by the company, amounted to $6,807,000, without any

deduction for accrued depreciation, made up of $2,550,000 for the gas department above, $4,178,000 for the electric department, and $80,000 for the steam department. The company claimed that the proposed rates would yield a return of 5.03 per cent upon that basis and about 6 per cent after deduction of accrued depreciation in amount of $1,487,000 in the three departments. The report of the company to the Commission for the year 1947 discloses gross fixed capital at cost in the several departments of $6,460,657 and accrued depreciation of $1,523,076 for the company as a whole. It discloses also that the company had, after deduction of operating expenses, including depreciation and taxes, a utility operating income of $280,268 for the year 1947, and a net income, after all charges and credits against operating income, of $286,843 available for the payment of dividends on the outstanding common stock of $2,625,000.

The company, as a combined electric, gas, and steam company, had at the end of 1947 a total capitalization of $3,228,000 made up of common capital stock, nopar value, in the amount of $2,625,000, and a note owing to the holding company, Derby Gas & Electric Corporation of Delaware, in the amount of $603,000. The note bears interest at the rate of 3½ per cent per annum. There are 105,000 shares of common stock outstanding on which dividends aggregating $277,200 were paid in the year 1947.

Contract between the Derby Gas and Electric Company and the Danbury and Bethel Gas and Electric Light Company

[1, 2] The Derby Gas and Electric Company filed with the Commission in the course of the hearing upon its application a copy of a contract which had been executed between that company and the Danbury and Bethel Company covering the sale of gas. This contract was referred to in the hearing on the rates of the Danbury and Bethel Company and it was the basis for the computation of the estimated cost of gas to that company in 1948. Consequently, the reasonableness of the price for gas, as determined by that contract, has a material bearing upon the rates to be charged for gas in the territory of both companies.

This contract was executed on February 12, 1948. The Commission is thus confronted, in determining reasonable rates for gas service in the area of the Derby Gas and Electric Company, with the question of what should be a reasonable charge for gas sold to the Danbury and Bethel Company in order that no disadvantage may be imposed upon the other customers of the Derby Gas and Electric Company, and in order that the rates to be fixed in the area of the Danbury and Bethel Company shall be based, so far as cost of gas in the holder is concerned, upon a fair charge to the Danbury and Bethel Company. In this connection the Commission takes cognizance that the two companies are corporate affiliates and that, as such, the contract requires more than ordinary consideration. This contract fixes a term of ten years for the sale of gas between the two companies. It provides a flat charge of $1,905 per month as a payment to be made by the Danbury and Bethel Company without stating what the charge covers. The contract also provides a commodity

charge for each 1,000 cubic feet of gas supplied under the contract, determined from (a) the total production expense to the Derby Company (Accounts 701–755, inclusive) as defined by the Uniform System of Accounts Prescribed for Gas Utilities by the Public Utilities Commission of the state of Connecticut, dated January 1, 1941, plus (b) the cost of pumping and transmission. Subsequent to the hearings on both the Derby and the Danbury and Bethel Cases, the Derby Company submitted to the Commission the component parts of the monthly flat charge of $1,905, which the company said is made up of a 5 per cent return on the gross capital investment in that portion of the Derby-Danbury transmission line within the chartered territory of the Derby Company plus the fixed charges incident thereto.

The president of the Derby Gas and Electric Company testified that the price for gas fixed by the contract had been determined to a large extent upon the fact that it was cheaper for the Derby Company to produce gas on a thousand cubic-foot basis for the entire requirements of the two companies than it would be to produce gas for the requirements of the Derby Company alone which, he stated, is brought about largely by the fact that the additional investment required in order to take on the load of the Danbury and Bethel Company over the initial investment required for the Derby Company alone was relatively small in amount. At the present time and prospectively during the year 1948 the Danbury and Bethel Company is expected to purchase at least 35 per cent of the estimated annual output of gas at the Shelton plant.

Examination of the data submitted by the Derby Company after the hearing in support of the $1,905 monthly charge discloses that there has not been included that part of the Derby Company's production plant investment in the Shelton plant, in computing the monthly charge, other than the transmission line devoted to sales to the Danbury and Bethel Company. Inasmuch as this monthly charge, labeled in the contract a flat charge, has for its purpose enabling the company to earn a return on its investment and to recover the fixed charges incurred in providing service, the amount appears to require an increase. This was particularly illustrated by the extent to which the company offered testimony at the hearing, through a qualified engineering expert, to show the relationship of the company's fixed obligations in terms of investment responsibility between the several classes of customers. This study endeavored to establish the investment responsibility of the several classes and to relate this in terms of dollars of investment assigned to each group of customers. It is not necessary, in reaching the entire conclusion below upon the company's application for rate relief, to discuss in detail this expert testimony. However, the testimony does indicate that each class of customers should bear its full investment and expense responsibility.

It is necessary in fixing rates to be charged by the Derby Gas and Electric Company to ascertain as definitely as possible that the charges fixed in the contract between the two companies are compensatory to the Derby

Company and that this requirement of the rates shall include in the monthly charge the Danbury and Bethel Company's responsibility for an investment in a gas-making plant designed to take care of the needs of both companies. Otherwise a burden or, indeed, a form of discrimination may be inadvertently placed upon the other customers of the Derby Gas and Electric Company by requiring them to pay higher rates in order that the over-all operation of the company shall be profitable. Therefore the Commission will consider the Danbury and Bethel Company as an individual customer bearing its full share of the production plant investment in determining reasonable rates and charges for the Derby Gas and Electric Company as related to the sale of gas to the Danbury and Bethel Company under this contract. The investment responsibility of the Danbury and Bethel Company, including Derby's production plant and transmission line, on the basis of the cost per books for the purpose of arriving at reasonable charges under this contract, is $543,000, after giving due allowance for Danbury's standby plant.

It would appear reasonable, in view of the large purchases of gas by the Danbury and Bethel Company, that the Derby Gas and Electric Company should earn a net return of 3 per cent on the entire investment apportioned to the Danbury and Bethel Company's business. In order to earn a net return of 3 per cent, the Derby Company must recoup 4.31 per cent gross on a consolidated return basis before Federal income taxes, or $1,950 on a monthly basis, before Federal income taxes. Deducting Federal income taxes of $593 leaves an amount of $1,357, which is equivalent to a 3 per cent return on a monthly basis on the Derby Company's investment devoted to the Danbury and Bethel Company's operations.

Using a 50-year life span for the production plant in Derby, including the transmission line and pumping and regulating equipment owned by the Derby Company, the amount of depreciation to be set aside monthly would amount to $820. Likewise, the taxes, other than Federal income taxes, allocated to that portion of the Derby Company's total production plant investment applicable to the sale of gas to the Danbury and Bethel Company would amount to $570 per month.

The four figures, referred to above, amount to $3,340 a month representing the fixed charges apportioned to the Derby Company's sales to the Danbury and Bethel Company. On an annual basis this would amount to $40,080 for the flat charge compared with the contract figure of $22,860 on an annual basis. The monthly transmission and pumping expenses are included in the commodity charge which is the cost of gas as indicated in the contract.

The order of the Commission hereinafter contained will modify the contract between the two companies in accordance with this conclusion and will provide that the monthly flat charge shall be increased to $3,340 and shall continue in force until any further order of the Commission. The estimates of operating revenues for the Derby Gas and Electric Company will be correspondingly increased by the amount of $17,220, the difference

between the monthly flat charge on an annual basis, as found reasonable above, and the monthly flat charge on an annual basis as provided for in the contract. Likewise, in the application of the Danbury and Bethel Company (Docket 8062) the Commission will increase the monthly flat charge to the same extent as a part of the cost of gas to be paid by the Danbury and Bethel Company.

Estimated Operating Revenues and Expenses

Subsequent to the hearing the president of the Derby Gas and Electric Company submitted revised estimates of sales of gas from the Derby Company to the Danbury and Bethel Company increasing the total estimate from 324,202 thousand cubic feet to 354,408 thousand cubic feet resulting in an increase of the revenue under the company's own figures from $237,000, as submitted at the hearing, to $263,815. This increase of $26,815 is also taken into account in computing operating revenues for the year 1948.

The company estimated that under the present rates there would be an increase in sales of 83,450 thousand cubic feet in the year 1948 over 1947, in which year sales amounted to 422,000 thousand cubic feet, affording the company additional operating revenues of $46,855. It does not appear from the record how the company calculated this additional revenue. It was obviously a low average rate applied to total sales, representing approximately 56 cents per thousand cubic feet expressed in terms of an average. In the year 1947 the company's average sales amounted to $1.06 per thousand cubic feet. Fluctuations in the sales of gas as between classes necessarily occur from year to year. This variation can be great in a particular year. In the absence of the method by which the company calculated the average, the Commission must use the average for 1947 with some allowance for fluctuation in 1948. An allowance of one dollar per thousand cubic feet for the additional sales of gas in 1948 appears reasonable, in the light of 1947 experience, and would result in total increased revenues of $83,450 rather than $46,855, as submitted by the company. In the determination of additional revenues required, the Commission will thus use the figure of $83,450 to represent increased retail sales for the year 1948.

[3] There was some indication at the hearing from the average sale price of gas to industrial customers under the rates submitted by the company that there would be, in some blocks of consumption, sales of gas at or close to the production cost of gas. While the Commission realizes that the average sale price of gas to industrial customers in large blocks of consumption is necessarily closer to production cost than with respect to other classes of customers, nevertheless the rates which the company charges its industrial customers should be above cost and compensatory. In the rates which the company is to submit to the Commission, in conformity with the order below, the company will be expected to submit rates for industrial customers that will be compensatory.

We now refer to the fuel adjustment clause which the company proposes to establish and which will be a source of operating revenue, largely offset, of course, by the cost of gas-

making fuels and production costs. Coke and gas oil are the two gas-making fuels. The fuel adjustment clause would use as its base the cost of those fuels to the company alongside the gas plant in December, 1947. As of that time the cost of coke was $14.60 per net ton and the cost of gas oil was 8.2 cents per gallon. In order to determine the amount of revenues to be obtained through the application of a fuel adjustment charge, it is necessary at this time to estimate what the average cost of gas-making fuels will be in 1948 over the base prices used in December, 1947, and to translate this increased cost of fuels into a fuel adjustment charge per thousand cubic feet according to a formula submitted by the company in its present application. It is estimated by the Commission that, according to the latest information available, the average fuel adjustment charge will not be less than 7.4 cents per thousand cubic feet for the year 1948 over December, 1947, costs and thus afford operating revenues for the year from this source of $37,500, based upon total estimated retail sales in 1948 of 505,458 thousand cubic feet.

[4, 5] The Commission will also consider as a source of revenue to the company forfeited discounts and profit on merchandising and jobbing, both of which amounted to approximately $6,000 for the year 1947.

These several sources of operating revenues, which we have just referred to, are shown below, in the aggregate, in Table 1.

[6] We set forth below, also, the several classes of operating expenses, including depreciation and taxes, in the gas department which the Commission finds to be reasonable. The Commission has adjusted upward the estimated production cost of gas in 1948 from $526,000, as submitted by the company, to $610,000, a difference of $84,000, in order to reflect the cost of producing the additional amount of gas to the estimate of sales for that year as revised by the company. The Commission has likewise increased transmission expense, in view of the increase in pumping costs for the additional sales of gas to Danbury, from $6,000 to $6,500. The other items of expenses, as submitted by the company, are allowed as reasonable. The Commission has calculated the Federal income tax on the basis of a consolidated tax return which is in force, in view of the affiliation between the several corporations, referred to at the outset. After calculating the Federal income tax on the basis of a single return, the Commission has applied a factor of 20 per cent reduction which, the company testified in the Wallingford Gas Light Company Case (Docket 8091), is a fair allowance based on the company's experience in estimating the benefit of a consolidated tax return.

[7] The Commission finds from all the evidence presented, as summarized above, that an increase in operating revenues for the company of $111,000 annually in its gas department, instead of $186,000, as requested, will be adequate and will result in a return of 3.5 per cent upon the gross cost of the company's gas property plus an allowance for working capital, materials, and supplies, in all approximately $2,550,000, as submitted by the company, and will also result in a return of 3.63

per cent after deduction of accrued depreciation in amount of $114,388.

We now show in the tabulation below, Table No. 1, the sources of operating revenues including therein an increase in rates of $111,000 and the several classes of operating expenses we have referred to above:

TABLE No. 1

	M Cu. Ft.	Dollars	
Operating Revenues			
Retail Sales—1947—Present Rates	422,004	$446,000	
Increased Retail Sales—1948—Present Rates	83,454	83,450	
Danbury 1948 Sales under Contract Revised by Company	354,408	263,815	
Danbury's Increased Fixed Charges under Revised Contract	—	17,220	
Revenue—Fuel Adjustment Charge	—	37,500	
Rate Increase Allowed	—	111,000	
Other Operating Revenues	—	6,000	
Total Operating Revenues	859,866		$964,985
Operating Expenses			
Cost of Gas		$610,000	
Transmission Expense		6,500	
Distribution Expense		60,000	
Customers' Accounting		23,000	
Sales Promotion		10,000	
Administration and General Expense		30,000	
General Maintenance		3,000	
			$742,500
Provision for Depreciation			$52,000
Taxes except Federal Income Taxes			43,000
Total Operating Expenses			$837,500
Operating Income before Federal Income Taxes			127,485
Federal Income Taxes (Estimated on a Consolidated Basis)			38,700
Operating Income after Federal Income Taxes			$88,785

In considering the need of the company for rate relief in the gas department, to the extent provided above, the Commission relates the operating revenues and expenses for the gas department, as set forth above, to the entire operations of the company as a combined electric, gas, and steam company. The revenues and expenses of the company for these several departments for the year 1948, as estimated and submitted by the company at the hearing, with the necessary revisions in the gas department resulting from the changes which the Commission has made above, are set forth below in Table No. 2:

TABLE No. 2

Operating Revenues			
Electric Department	$1,750,000		
Gas Department	964,985		
Steam Department	233,000		
Total		$2,947,985	
Operating Expenses, Including Taxes and Depreciation			
Electric Department	$1,539,000		
Gas Department	876,200		
Steam Department	193,200		
Total		$2,608,400	
Operating Income			$339,585

This operating income of $339,585 on a consolidated basis will result in a return to the company of approximately 5 per cent on the combined fixed capital, working capital, materials, and supplies for the three departments, $6,807,000 as submitted by the company, without any deduction for accrued depreciation and will also result in a return of 6.4 per cent, after deduction of accrued depreciation, in amount of $1,487,000 in the three departments. These earnings on a consolidated basis are thus substantially the same as those estimated and submitted by the company. It thus appears that the increase of $111,000 in operating revenues which the Commission has allowed above for the gas department will yield the company substantially the operating income that it finds necessary to maintain a sound financial condition.

MICHIGAN PUBLIC SERVICE COMMISSION

Re Calhoun County Telephone Company

T-73-48.2
August 2, 1948

APPLICATION *for authority to increase telephone rates; authority granted and improvement of service ordered.*

Rates, § 131 — Reasonableness — Character of service.
Telephone service must be commensurate with the rates paid therefor, and the company must adopt sufficient means to improve its plant and equipment and must render better and more efficient service in order to enjoy continuance of increased rates approved by the Commission.

By the COMMISSION: At a session of the Michigan Public Service Commission held at its offices in the city of Lansing on the 2nd day of August, A.D., 1948.

Petition was filed June 25, 1948, by the Calhoun County Telephone Company, requesting authority to increase rates for telephone service in its Homer and Tecumseh exchanges. This matter was brought on and heard July 28, 1948.

It appears from the petition and testimony taken at the hearing, the petitioner requires relief in the matter of its rates for telephone service if it is to continue to give adequate telephone service.

Petitioner modified its request for an increase in rates at the hearing with respect to residence multiparty common battery service. In its petition, it proposed a rate of $2.50 for this service which appeared to be out of line with its other proposed rates. Accordingly, it revised the rate for this service downward from $2.50 to $2 per month. This change had no effect

on its increased revenue because it does not at the present time have customers taking this service.

While the Commission recognizes that the owner of a utility, such as the Calhoun County Telephone Company, is entitled to fair and reasonable compensation for services rendered, yet it is equally true that the service must be commensurate with the rates paid therefor, and the company is admonished that it must adopt sufficient means to improve its plant and equipment and must render better and more efficient service in order to enjoy continuance of the rates granted by this Commission.

The Commission having carefully considered the matter before it and being advised in the premises finds that petitioner required relief in the matter of its rates for telephone service.

WISCONSIN PUBLIC SERVICE COMMISSION

J. G. Van Holten & Sons, Incorporated, et al.

v.

Kenosha Motor Coach Lines, Incorporated

2-SR-1929
September 1, 1948; rehearing denied September 17, 1948

COMPLAINT *by shipper against railroad's service discontinuance; continuance of service ordered.*

Service, § 213 — Abandonment of interstate service — Motor carriers — Power of Interstate Commerce Commission.

1. The Interstate Commerce Commission has no jurisdiction to authorize the abandonment of the interstate service of a railroad, and, consequently, a carrier's filing of a cancellation of its interstate tariffs with the Commission cannot accomplish a lawful abandonment, p. 127.

Service, § 215 — Abandonment by motor carrier — Consent of Commission — Interstate service.

2. A state statute requiring an interstate railroad to apply to the state Commission before discontinuing service must be complied with by a railroad in the absence of any effective Federal jurisdiction over the question of abandonment, p. 127.

By the COMMISSION: On May 6, 1948, J. G. Van Holten & Sons, Inc. and others filed a complaint with the Commission against the Kenosha Motor Coach Lines, Inc., of Racine requesting that said company be commanded to cease and desist from attempting to discontinue and abandon

interstate and intrastate freight service of its electric interurban railway lines between Milwaukee and Hales Corners and between Milwaukee and Waukesha until and unless it secures proper authority therefor.

APPEARANCES: Ralph J. Drought and O. A. Grottemaat, Attorneys, Milwaukee, for complainants; Harold Messner, Milwaukee, for J. G. Van Holten & Sons, Inc.; Louis Pinzel, for Hales Corners Lumber & Fuel Co.; Carl Johnson, Hales Corners, for Hales Corners Business Men's Asso. Merchants of St. Martins, Tess Corners, Muskego; T. H. Spence and William A. Mann, Attorneys, Milwaukee, for General Electric Company; William Irhig, Attorney, Milwaukee, for Richard J. Ledward and twenty-five other passenger users; Edwin Knappe and Joseph L. Bednarek and William A. Ketterer, Assistant City Attorneys, for city of Milwaukee; Martin R. Paulsen, Attorney, Milwaukee, for T. M. E. R. & T. Co.; William F. Quick and Max Raskin, Attorneys, Milwaukee, for Labor Organizations; J. Finn Grimes, Attorney, Milwaukee, for town of Greenfield; William G. Callow, Assistant City Attorney, Waukesha, for City of Waukesha; William Thiem and Lloyd D. Engebretsen, Milwaukee, for Thiem Products, Inc.; Curt E. Hoerig, Vice President, Milwaukee, for Geuder, Paeschke & Frey Co.; Frank M. Coyne, Attorney, Madison, and W. Wildman, Attorney, Chicago, for Kenosha Motor Coach Lines; J. Ward Rector, Chief Counsel, for the Commission Staff.

At the first hearing the complainants withdrew the complaint in so far as it related to intrastate commerce, upon a statement by counsel for the respondent company that it had no intention of abandoning intrastate freight service without first securing the consent of the Public Service Commission under the provision of § 196.81, Statutes. Briefs were submitted subsequent to the original hearing on the question of law as to whether the respondent railroad could lawfully abandon or discontinue its interstate freight operations on the lines in question without first securing the consent of this Commission under the provisions of § 196.81, Statutes. The Commission having concluded that its consent to such discontinuance or abandonment was necessary under said section, the parties were so advised and further hearing held. Briefs have been filed.

The facts are undisputed. The respondent company on or about May 5, 1948, discontinued freight service on the lines in question and theretofore by proper tariff filing with the Interstate Commerce Commission canceled all of its tariffs fixing rates for interstate transportation on said lines.

[1, 2] We are of the opinion that the cancellation of the interstate tariffs does not accomplish lawful abandonment as to interstate service in view of the fact that the Interstate Commerce Commission has no jurisdiction to authorize abandonment. All that is necessary for the respondent railroad to do in order to resume interstate operations is to refile with the Interstate Commerce Commission the appropriate tariffs which will automatically become effective unless suspended by the Interstate Commerce Commission. Therefore, no affirma-

tive action of the Interstate Commerce Commission is necessary to effectuate a resumption of service. In the absence of any effective Federal jurisdiction over the question of abandonment § 196.81, Statutes, is applicable and the respondent railroad is bound to comply therewith.

The Commission finds:

1. That the respondent, Kenosha Motor Coach Lines, Inc., on or about May 5, 1948, discontinued and abandoned interstate freight service on its interurban railway lines between Milwaukee and Hales Corners and between Milwaukee and Waukesha.

2. That prior to such abandonment said respondent railway company did not make application to this Commission for its consent to said discontinuance and abandonment of interstate freight service nor receive the consent of this Commission to such discontinuance and abandonment.

3. That there is a public demand for interstate freight service on said lines of interurban railway.

The Commission concludes:

1. That the Interstate Commerce Commission is without jurisdiction with respect to the discontinuance and abandonment of freight service on the interurban lines of the respondent railway as above described.

2. That the Public Service Commission of Wisconsin has jurisdiction of such discontinuance and abandonment of interstate freight service pursuant to the provisions of § 196.81, Statutes.

3. That the discontinuance and abandonment of interstate freight service on said lines by the respondent railway company without securing the consent of this Commission constitutes a violation of said § 196.81, Statutes.

4. That an order should be entered requiring said respondent railway company to restore interstate freight service on said lines of interurban railway.

ORDER

It is therefore *ordered:*

1. That the Kenosha Motor Coach Lines, Inc. restore and thereafter render interstate freight service on its lines of interurban railway between Milwaukee and Hales Corners and between Milwaukee and Waukesha, respectively.

2. This order shall become effective ten days from the date thereof.

Industrial Progress

A digest of information on new construction by privately managed utilities; similar information relating to government owned utilities; news concerning products, supplies and services offered by manufacturers; also notices of changes in personnel.

Buffalo Niagara Plans to Spend $59,440,000

BUFFALO Niagara Electric Corporation plans to spend $59,440,000 for capital improvements, nearly half of it for a new steam-electric plant at Dunkirk, it was announced recently.

The new plant is expected to be finished late in 1950 or in 1951. The $59,440,000 expenditure for generating stations, transmission lines, and general improvements will increase the value of Buffalo Niagara's plant by about a fourth.

Modernization and Additions By Jersey Central Power

THE JERSEY CENTRAL POWER AND LIGHT COMPANY announced through its president, E. H. Werner, that a contract has been awarded to Burns and Roe, Inc., for the design and construction supervision of a major addition to the company's plant at South Amboy, New Jersey. The addition, which is scheduled for completion by July 1, 1952, will add 50,000 kw. to the present generating capacity at the South Amboy Station.

Just recently the original capacity of this South Amboy Station was increased by 13,000 kw. At the present time the gross load capacity of the Sayreville Station is being increased from 70,000 kw. to 103,000 kw. Burns and Roe, Inc., also are in charge of engineering and construction for these modernizing steps.

Georgia Power Announces Expansion Program

PLANS for doubling the capacity of plant Yates, the mammoth steam-electric power plant being built near Newnan by the Georgia Power Company, were announced recently by C. B. McManus, president. The initial capacity will be 200,000 kilowatts instead of the 100,000 kilowatts previously announced.

The enlargement will consist of a second 100,000 kilowatt unit which will be built along with the first unit. Both are expected to begin operation late in 1950 within two or three months of each other. Cost of the two units together is estimated at approximately $21,000,000 including high-tension transmission lines to connect the new plant with the power company system. The plant is designed for ultimate expansion to 400,000 kilowatts, 66 per cent greater than any steam-electric plant now existing in the South.

When finished, the first two generating units will produce about 1,200,000,000 kilowatt hours of electricity a year, which is a fourth of all present requirements on the company's system and approximately twice as much as will be produced annually by the Clark Hill hydro-electric development near Augusta.

$50,000,000 Program Planned By Connecticut Lt. & Pwr.

THE CONNECTICUT LIGHT AND POWER COMPANY, which in the past three years has spent $27,000,000 in an extensive improvement and construction program, must extend that program at an estimated expenditure of nearly $50,000,000, R. H. Knowlton, president, announced recently. The estimated expenditure for additional and improved gas and electric facilities includes projects now underway. About $15,600,000 of the estimated total cost of $77,000,000 will be spent during this year.

Since 1945, Mr. Knowlton said, use of electricity in the company's territory has increased considerably and is still rising. To provide for anticipated future demands, the company will

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direct the greatest portion of the $50,000,000 expenditure toward the electric phase of its business.

The largest single item scheduled is about $25,000,000 which will be spent for additions and improvements to electric generating facilities.

All but about $5,000,000 of the remaining $25,000,000 will be spent on other improvements to the company's electric transmission and distribution facilities.

Improvements contemplated in the company's gas facilities, Mr. Knowlton said, are installation of a new gas making unit, erection of eight new gas storage holders, and extension of 52 miles of new gas mains.

Catalogs and Bulletins

New EEI Safety Manual

SAFE handling of electric lines and safety insurance against shock and burn accidents in work areas through the proper use of rubber protective equipment are described in "The Application and Care of Rubber Protective Equipment," a 31-page safety manual just published by the Accident Prevention Committee of the Edison Electric Institute. The new booklet, a companion piece to the previously published "Use and Care of Pole-Climbing Equipment," is one of a series of manuals being prepared for the electric industry by the Committee.

Copies are available from the Edison Electric Institute, 420 Lexington avenue, New York 17, New York, at 25 cents per copy.

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Large Capacity Disc Type Water Meters

A NEW bulletin, No. W-807, describing Pittsburgh large capacity disc type water meters has been issued by the Pittsburgh Equitable Meter Division, Rockwell Manufacturing Company. It tells the complete story of a sensitive meter construction that has been especially designed to extract maximum revenue from commercial and industrial services.

To simplify an understanding of Pittsburgh meter construction, operating features are clearly depicted in this literature via phantom view and sectioned drawings. Complete specifications and prices for all sizes from 1½-in. through 4-in. are presented.

Copies may be obtained by writing the manufacturer, Pittsburgh 8, Pennsylvania.

I-T-E Publishes New Technical Bulletin

A NEW technical bulletin, offering a solution to the problem of "low voltage power conversion through the medium of mechanical rectifiers," has been released by the I-T-E Circuit Breaker Company.

The history of the mechanical rectifier is briefly traced from its origination by Siemens-Schuckert, of Germany, up to and including its development and modification for American applications by I-T-E.

In addition to giving an elementary explanation of the theory of mechanical conversion, the new bulletin also contains a detailed explanation of the principles of the mechanical rectifier, including schematic diagrams of the various phases of operation.

A copy of this bulletin may be had by writing I-T-E Circuit Breaker Company, 19th and Hamilton streets, Philadelphia 30, Pennsylvania. Ask for Bulletin 4809.

Personnel Changes

Ford, Bacon & Davis

FORD, BACON & DAVIS, engineers-constructors, with offices in New York, Philadelphia, Chicago, and Los Angeles, have announced the election of Charles C. Whittelsey, as vice president in charge of construction activities. He has been with the firm since 1925 and was elected a director in 1946.

It was also announced that Mr. Whittelsey has been elected executive vice president of the firm's subsidiary, Ford, Bacon & Davis Construction Corporation, with headquarters at Monroe, Louisiana.

Hagan Corporation

M. J. BOHO has been elected vice president in charge of sales, Hagan Corporation, Pittsburgh combustion control and flow meter manufacturer.

Mr. Boho joined Hagan as a field service engineer in 1936, after serving as a research engineer in private industry and with the Potomac Electric Power Company, Washington, D. C.

He has played an important part in the designing, installation, and adjustment of Hagan automatic combustion controls in many of the largest power and steel plants in the United States and Canada.

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Here's a unique store modernization and store-lighting show. Two truck-driven 26-foot trailers are utilized in the caravan—each trailer containing six faithfully reproduced scale-models, like the one below, showing the latest trends in store front and interior designs and in modern lighting techniques.

Each of the twelve miniature models is life-like in every detail. A wide variety of businesses are covered, with their individual problems ingeniously resolved.

If you are interested in new and more effective ways of building and lighting retail stores, you'll find the Pittsburgh Caravan well worth seeing. Since the tour will last many months, advance publicity will inform you when it will reach your vicinity. Watch for it.

"PITTSBURGH"

STORE FRONTS AND INTERIORS

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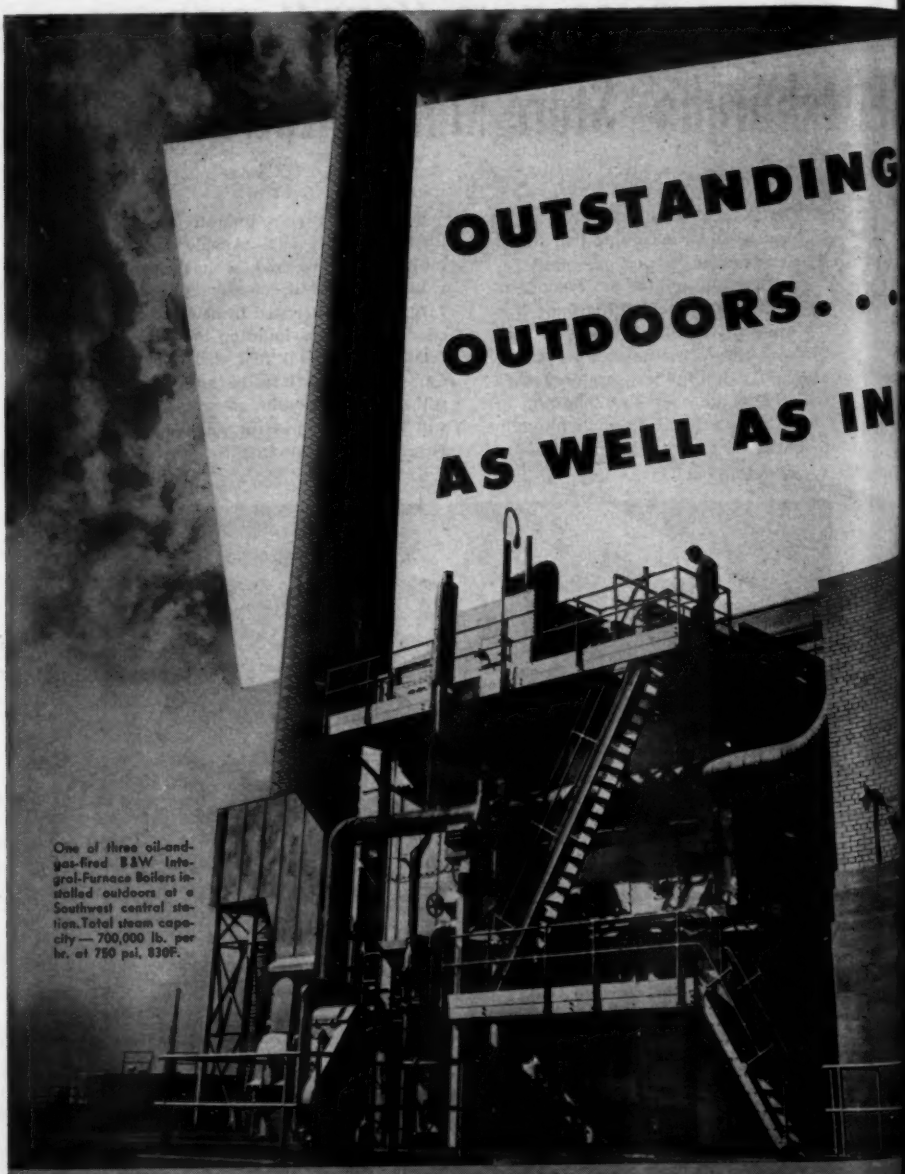

One of three oil-and-gas-fired B&W Integral-Furnace Boilers installed outdoors at a Southwest central station. Total steam capacity — 700,000 lb. per hr. at 750 psi, 830F.

Outdoor and Semi-Outdoor Installations of B&W Boilers:

By Industry: Central Station, Refineries, Chemical Plants, Rubber Factories, Manufacturing Plants.

By Locations: Arizona, California, Colorado, Florida, Iowa, Kentucky, Louisiana, New Jersey, New Mexico, New York, Oklahoma, Oregon, Pennsylvania, Texas, Utah, Argentina, Columbia, Cuba, Mexico, Netherland West Indies.

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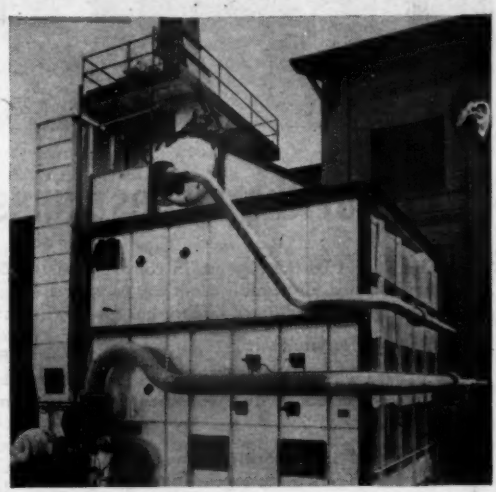
Outdoor and semi-outdoor installations are an old story with B&W Boilers. They have been identified with these types of power plants since their inception over 15 years ago. More than 100 Integral-Furnace, Radiant, and Stirling units with an aggregate steam capacity of 17 million lb. per hr. are now in service or on order. Individual steam capacities range from 25,000 to 500,000 lb. per hr., with pressures up to 1500 psi and temperatures up to 950 F. Fuels include pulverized coal, gas, oil, wood, and industrial refuse.

Installations are located in fifteen different states—North, East, South, and West—and in several countries abroad. Exposed to all kinds of climatic conditions—snow, rain, high winds, temperatures from —30 F to over 100 F—these B&W boiler installations are giving the same high standards of performance and economical operation that have made B&W boilers the leading choice for conventional indoor plants for 80 years.

Four 65,000 lb. per hr. B&W Integral-Furnace Boilers installed outdoors at a Utah refinery. They are fired with oil and gas.



One of the earliest outdoor boiler installations in central station service—a B&W Integral-Furnace unit of 75,000 lb. per hr. capacity of 87.5 psi, 825 F; fired with oil and gas.

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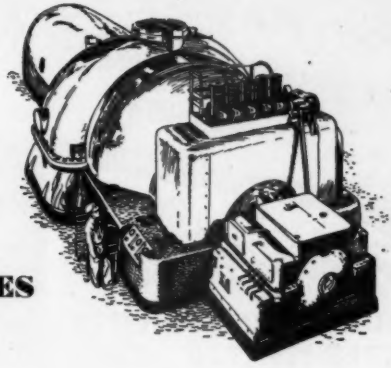

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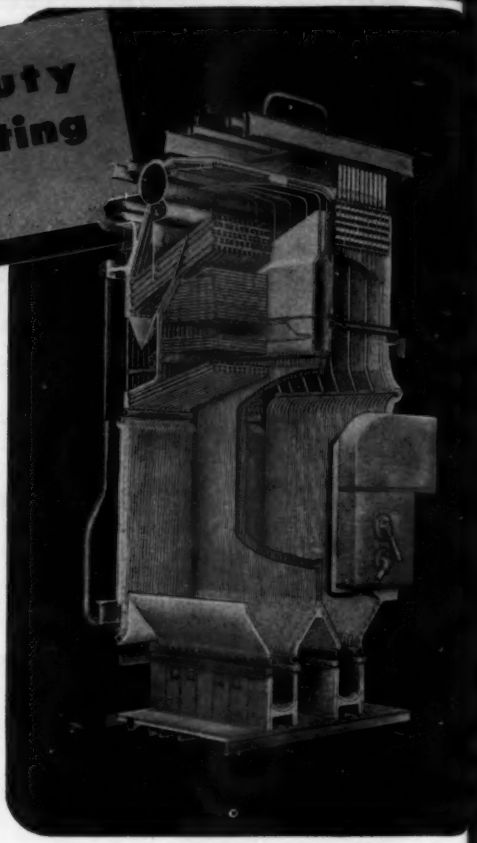


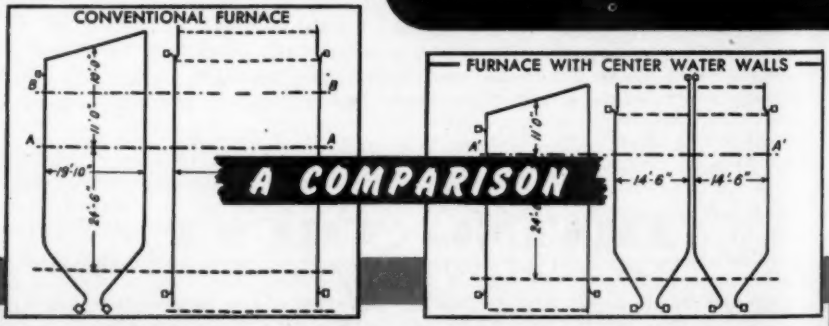
Springfields'

DIVIDED FURNACE WITH CENTER WATER WALL

The divided furnace with a CENTER WATER WALL* is a development first introduced by Springfield Boiler Co., for large central station installations. It has application where gas temperatures entering the first pass and superheater must be limited to prevent slagging. It enables a unit to stay on the line longer before shutting down for maintenance and cleaning.—

The divided furnace construction has been highly dependable and successful in service. It is adaptable to any kind of firing. Springfield offers it on both bent tube and straight tube boiler designs.

***Patented**



These diagrams show how the *center water wall* made it possible for Springfield to reduce the height of furnace 22% on one 350,000 lb. pulverized coal fired unit in addition to securing some 90° lower temperature at the first pass. Ask for information on this and other modern installations.

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● Newport News has received contracts for all fifteen of the turbine units awarded thus far for Grand Coulee Dam, the world's greatest power installation. With individual ratings at 150,000 and 165,000 h.p. at 330-foot net head, they are the highest-powered hydroelectric units ever built.

The engineering, efficiency, and workmanship of Newport News built water power equipment has been proven by installations in many of the world's great power developments.

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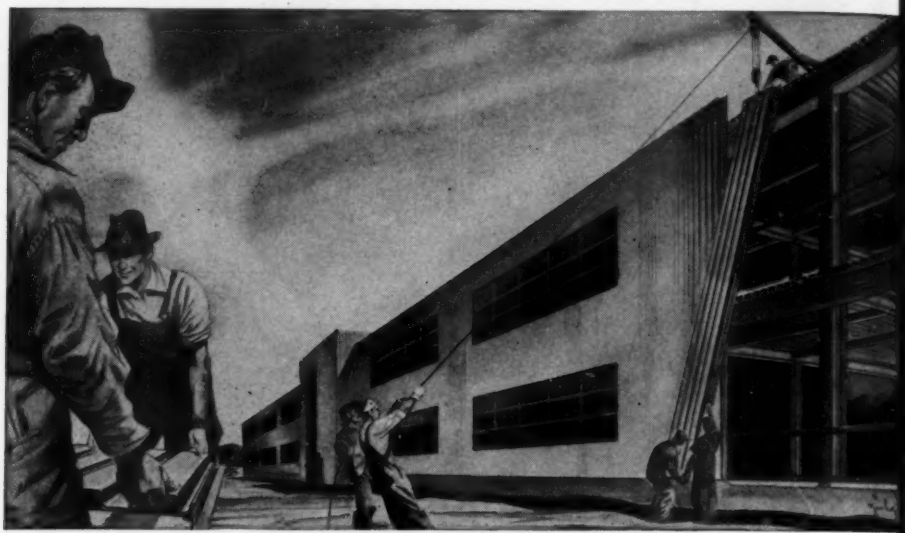
what we really make is time!



it's faster to hang a wall than to pile it up...

Little blocks, say 2" x 4" x 8", don't pile up very fast.

We hang walls up in sizable panels.

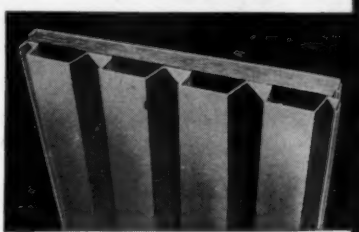
And that is an easy way to understand why Robertson's real product is *time*.

We make walls that are hung in place. We make them complete with insulation when the panels are delivered. We engineer them piece by piece in advance at the factory. We put expert crews on the job to place them.

We make time, now, when time is the essence.

We save days and weeks in finishing a building for *use*, because years have been put into the development of these unique skills.

Quick is the word we practice.



Q-Panels are fabricated from Galbestos, aluminum, stainless steel, galvanized and black steel in lengths up to 25'.

Q-Panels, 3" in depth with 1½" of incombustible insulation, have a thermal insulation value superior to that of a 12" dry masonry wall with firred plaster interior. A single Q-Panel with an area of 50 sq. ft. can be erected in nine minutes with a crew of only five men, and twenty-five workmen have erected as much as an acre of wall in three days.

Q-Panel construction is quick, dry, clean, and offers an interesting medium of architectural expression.

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Flexible suspension of piping in one of world's largest catalytic cracking plants

ecting hangers for piping subject to ther- l movement is completely simplified. innell Pre-Engineered Spring Hangers are ailable in stock sizes for any load uirement.

mply compute the load and order the per size Grinnell Pre-Engineered Spring nger as indicated in the Capacity Table appearing in descriptive catalog. 14 sizes with load range from 84 lbs. to 4,700 lbs.

LOOK AT THESE FEATURES . . .

maximum variation in supporting force per of deflection is 10½% of rated capacity—in sizes.

des prevent contact of coils with casing wall or ger rod and assure continuous alignment and centric loading of spring.

mpact—minimum headroom made possible by compression*.

compression* assures operation of spring with- its proper working range where variation in porting force is at a minimum.

All-Steel welded construction meets pressure piping code. 14 sizes available from stock—load range from 84 lbs. to 4700 lbs.

Easy selection of proper sizes from simple capacity table. Installation is simplified by integral load scale and travel indicators.

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***Precompression is a patented feature.**

Write for descriptive folder on Pre-Engineered Spring Hangers Fig. 268.

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